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ABSTRACT

This monograph includes a selected group of papers which were presented at IRA's Atlantic City convention (1971). The collection has been subdivided into three groupings. The first, "Writers, Teachers, and Children," discusses the intrinsic value of literature and its effect upon the reader. The second, "Teachers, Programs, and Children," deals with the quest for a sound, sensitive (but elusive) total reading program aimed at improving skills and attitudes. And the third, "Some Teaching Skills and Techniques," provides a porpourri that probes areas teachers should strengthen to be effective reading teachers, that presents research showing how skills can be taught efficiently, and that describes innovations that may make it possible to advance reading instruction to an optimum level for everyone. (Author/TO)

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# THE QUEST FOR COMPETENCY IN TEACHING READING

HOWARD A. KLEIN, *Editor*
University of Saskatchewan

**INTERNATIONAL READING ASSOCIATION**
**Six Tyre Avenue   Newark, Delaware 19711**

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The International Reading Association attempts, through its publications, to provide a forum for a wide spectrum of opinion on reading. This policy permits divergent viewpoints without assuming the endorsement of the Association.

# FOREWORD

Language is life oriented. Without life there would be no language—no one to utter the sounds, write the words, or engage in nonvocal signaling. It has been said many times that language enables man to build a construct of reality and/or existence—his environment. Reading—one of the most important and indispensable facets of the total language arts spectrum—enables the responsible citizen to analyze a more varied and clearer record of current and past events than any of the other communicative arts.

Those of us who are dedicated to the improvement of reading skills of our students hold an honored place in society. Through and by our efforts we are giving those under our tutelage a fuller measure of the best that society has to offer. Thus by aiding each to communicate more fully with his contemporaries, many social barriers will disappear, and the resultant force will help to eliminate many of the social problems that beset our society during this decade.

This monograph includes a selected group of papers which were presented at IRA's Atlantic City convention. Topics range from titles such as "How the Reading Teacher Can Help Parents," to "Pop/Rock Lyrics, Poetry, and Reading," to "On the Morning of the Fifth Day." A cursory glance at the contents will pique the interest of the reading teacher and hopefully she will read and study most of the articles.

The theme implicit in this monograph can be found in Nila Banton Smith's article, "The Quest for Increased Reading Competency." Needless to say, the beloved Nila is at her best, bringing to the reader years of rich experiences, providing rare insights into the status of reading instruction, and opening wide the veil, giving each of us a tempting view of morrows. Inherent in all these aspects of her paper is a challenge to reevaluate the status quo and to give a new and dynamic direction to all aspects of reading instruction.

While several papers have been highlighted in this foreword it should not be construed as an attempt to assign lesser values to the other articles. The article "Writer to Reader" bridges the gap between the child's world and that of the adult. Also, it reveals so poignantly that each author, while writing, bequeaths all his mental endowments to the reader.

There is appetizing fare for every reader of this volume. The constant quest for ways and means to increase the reading competency of students has been a hallmark of reading teachers. During this quest, teachers can well pause to search this volume. Reading it will provide a pleasant respite and a challenging and rewarding experience.

Donald L. Cleland, *President*
International Reading Association
1970-1971

# INTRODUCTION

Man's business is man; hence, much of his creative energy is dedicated to studying, talking, and writing about himself. He seeks to understand how he functions within a culture in order to bring about satisfying changes in that culture. An aspect of culture which concerns many people is the teaching of reading.

One of man's notable abilities is to monitor virtually all that he does. Periodically, specialists meet to discuss their findings; and, then, the papers presented at annual conferences are published, mainly for the benefit of the select group. But this group anticipates that printed proceedings will stir others to contemplate what was said about a field in a meeting at a particular time and place.

Printed papers and teaching have at least this much in common: If change takes place as an indirect or direct result of either, it will occur in the nebulous future. Print and teaching exist always in the present, but they also transcend time and link generations. This description was put well by Brooks Adams who wrote of teaching, "A teacher affects eternity; he can never tell where his influence stops." Admittedly, the statement is more an article of faith than a research hypothesis; but, whatever truth the observation holds for man today, it is of such great significance that it cannot be ignored. Yet, there is probably a more critical extension of Adams' assertion which is that not enough of eternity is, indeed, influenced by either print or teaching.

This volume is dedicated to readers who may advance knowledge and influence eternity in some small way because of what they have read here. No one can be so omniscient as to foresee which line, page, or article might produce that silent miracle of communication between author and reader, but it is hoped that it will take place.

The collection of papers has been subdivided into the following three groupings:

*Writers, Teachers, and Children.* In this section, the intrinsic value of literature and its effect upon the reader is established by professional writers and professional teachers.

*Teachers, Programs, and Children.* This section represents the never-ending quest for a sound, sensitive, but all too elusive total reading program aimed at improving skills and attitudes. *Some Teaching Skills and Techniques.* This section provides a potpourri probing areas teachers should strengthen to be effective reading teachers, presenting research showing how skills can be taught efficiently, and describing innovations that may make it possible to advance reading instruction to an optimum level for everyone. The volume concludes somewhat wistfully with the dream of a businessman who believes that reading achieves the ultimate good.

HAK

# WRITERS, TEACHERS, AND CHILDREN

# POP/ROCK LYRICS, POETRY, AND READING*

*Nancy Larrick*
*Lehigh University*

When Elvis Presley became a national figure in the early fifties, teenagers collapsed in adoration of the youth from Tupelo, Mississippi. Those over thirty-five looked down upon Presley as a passing phenomenon not worth a serious thought. In the first six months of 1956, Presley sold eight million records; at year's end he had become a $20-million-a-year industry. The kids did it.

Ten years and uncounted millions of records later, the Beatles landed to exploit the youth culture which had sprung up with Elvis and flourished on the rock songs of Chuck Berry, the fury of the twist, and the dark passion of soul. By that time, the early disciples of Elvis had children of their own. But these young parents were still part of the rock cult which today includes almost everyone under thirty. With the advent of the Beatles, pop exploded all over. Hundreds of musical groups were soon seeking a portion of the glory and the money.

In the meanwhile a new generation of folk singers had emerged. Bob Dylan, Phil Ochs, Joan Baez, and Tom Paxton were passionately political, demonstrating that lyrics could be as important as sound. Rock groups began to sharpen their lines until they said something.

The music of youth was a boon to the management of civic auditoriums that had been subsisting on prestige rather than profit. The record industry struck a Comstock lode. Today no less than 85 percent of all single records are bought by persons under twenty-five. "The kids will go without food to buy records," one critic remarked.

Who are the favorite composers, poets, and spokesmen of America's young? Don Roberts of the State University of New York made inquiries from coast to coast and reported "You hear the names Simon and Garfunkel, the Beatles, Mick Jagger, Bob Dylan, Judy Collins, and others over and over again" (*5*). Bob Dylan and Leonard Cohen are the most popular poets. All are part of the oral literature of our time, exalted by the young but—until recently—brushed aside by teachers and librarians.

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* This article also appears in the December 1971 issue of the *Journal of Reading.*

One of the most persuasive rock commentators is Nik Cohn whose book, *Rock from the Beginning,* came out in 1969 (*1*). "I was ten when it started," he says of rock music. "I'm twenty-two now, and it has bossed my life. It has surrounded me always, cut me off, and it has given me heroes, it has made my myths. Almost, it has done my living for me. Six hours of trash every day, and it's meant more to me than anything else."

I am of the generation that tilted its nose at the Presley frenzy. The songs that he and his followers shouted and screamed were both tuneless and meaningless to me. The Beatles struck me as more of the same, plus hair.

### *BRIDGE OVER TROUBLED YEARS*

But my isolation was not impenetrable. Several members of the teenybopper set (six to sixteen) spent some time at our house and immediately switched our radio from the classical music station to one that blasted the loudest rock music I ever tried not to hear. These youngsters knew all the words of songs I had never heard of. "But it's the sound that counts," one of them told me. "Sound is everything." It was everything, all right; and at times I was ready to flee to the woods.

I was saved by a book: *Favorite Pop/Rock Lyrics* by Jerry L. Walker (*7*). For the first time I read the words of "Mrs. Robinson," "The Unknown Soldier," and "Jennifer Juniper." I read every lyric in the book. I found that I was opening my mind to some new ideas, to some fresh pictures of the society I belong to. And once I had opened my mind, I no longer had to close my ears.

I took this slender book to my poetry workshop at Lehigh University and dropped it into the circulating collection, which ranged from Lewis Carroll and Walter de la Mare to Eve Merriam. The book became the most popular title of the lot. My students are all inservice teachers, some first-year interns. Two-thirds of these teachers are twenty-five or younger. No wonder they went for *Favorite Pop/Rock Lyrics,* a collection that grew out of their own generation—the generation of Nik Cohn, who had said that rock ". . . meant more to me than anything else."

Four students chose pop/rock lyrics as a project for a report to the class. They converted an adjoining room into a discotheque with psychedelic lights, posters, record player, records, and copies of the lyrics. As the music blared and beat in the changing light, I tried to follow the words to "Nowhere Man," by John Lennon and Paul McCartney.

The record ended. "Let's hear it again!" came the cry. The twenty-three-year-old teacher in charge swung the needle over. The young teachers listened with heads back, eyes closed, feet tapping the rhythm. The words and music of rock were part of them.

Discussion was vigorous. Who is the Nowhere Man? Where is Nowhere Land? At first the teachers seemed to equate Nowhere with a low social or economic status: the guy without a job, the school dropout, the failure. But could the president of a great corporation ever become a Nowhere Man? "Yes, if he got fired," someone said. "And he could be so tied into the rat race that he wouldn't know where he was heading," said another.

"We had better listen again," the chairman said. "How is he 'a bit like you and me'? When have you and I been in Nowhere Land?"

"When I'm worrying about whether the draft will get me," a young man said.

"And will my kids ever grow up in our fouled-up environment," another suggested.

"I feel like a Nowhere Man in these foundation courses we have to take," said a conscientious objector to regimented education.

Why does our society produce so many nowhere men? Many of the answers came from students who had not been involved in discussions before. Every comment was deeply personal, and some were quite provocative.

Does this lyric suggest any poems you know? Referring to the rock title, someone replied "What about Richard Cory?" This reply led to Edward Arlington Robinson's poem of the same title and then to Edgar Lee Masters' poem "William Goode" and Edwin Markham's "The Man with the Hoe." Thus the teachers were drawn into a discussion much broader than the pop/rock lyrics they had begun with.

Months later the young teacher who had planned the session wrote to me: "I was a business major in college. I never did dig poetry, and I guess you thought I was a misfit in the poetry workshop. But when you let us bring in pop/rock lyrics, I found myself."

He is now teaching fifth and sixth graders in the worn-out coal country of eastern Pennsylvania. Recently he sent me a book of poems his pupils had written—beautiful and sensitive work. "It's not rock stuff," the teacher said, "but it took rock music and rock lyrics to get us going."

Another teacher showed us a film his sixth graders had made for "Nowhere Man." "It was their idea," he said. "I think it's their favorite poem."

### *THE SOUND OF IT ALL*

Why do these kids move to pop/rock like iron filings to a magnet? After many hours of discussion, observation, and listening, I am convinced that the great appeal is sound. My friends of under twenty-five get things better by ear than by eye, probably because they have grown up in a constant bombardment of words from radio, TV, and records. I usually say, "Let me see the words," but they say, "Let me hear it again"—even when the printed words are right in front of them.

Much of the music is, to me, a jangling discord with frequent explosive effects that make me almost as uncomfortable as the audience reportedly was that first heard Stravinsky's *Le Sacre du Printemps* in 1913. But I can't deny that the insidious beat of rock whams away at my complacency. No one can remain the same after a thorough exposure.

The lyrics reinforce the rhythm with an abundance of monosyllabic words in a conversational pattern that repeats, backs up, and repeats again. It's the modern jargon which drops subjects, slurs syllables, and spices the lines with long drawn out *ohs, nos,* and *uh-hums.*

Furthermore, rock lyric writers use first and second person pronouns to enfold the listener in the song. Thus the Vogues sing:

> *There is someone, walking behind you*
> *Turn around, look at me.*

And the Isley Brothers say:

> *Let me hear you say, "It's my thing;*
> *I do what I wanna do."*

They sing primarily about the concerns and anxieties which haunt those of us who are lonely, unsure, frustrated, and groping for solutions we can live with. This is poetry of feeling—deeply personal feeling. As the Youngbloods sing:

> *. . . say what you're feelin', feelin' inside . . .*
> *Don't keep your feelin's locked up inside ya*
> *Tear down your walls, don't let 'em hide ya*
> *Reach out your hand, now*
> *Can't you understand?*

The issues tackled by these song writers come from the hearts of the young: school with its meaningless routines (*Twenty years of schoolin' / And they put you on the day shift*—Bob Dylan); the generation gap (*People try to put us down / Just because we get around*—Peter Townsend for the Who); pollution and destruction of the environment (*They took all the trees and put them in a tree museum / And they charged all the people a dollar and a half to see 'em*—Joni Mitchell); never-ending war (*It's all over for the unknown soldier*—the Doors); the agony of loneliness (*All the lonely people / Where do they all belong?*—the Beatles); and the enigma of love (*Love is but the song we sing and fear's the way we die*—Chet Powers for the Youngbloods).

These topics are not usually studied in school. They seldom show up in anthologies, certainly not in the context of the here and now. But the fact is that pop/rock is going to school in spite of the curriculum—and it is getting an enthusiastic welcome. In many classrooms, students bring their own records to introduce reading lessons based on pop/rock lyrics. Even the dullest exercise in reading skills takes on life with this approach.

### *THE BEAT GOES IN*

One teacher, Bud Scoppa, asked seventh and eighth grade students to listen to records by the Beatles and by the Rolling Stones and to sketch their spontaneous responses to the two groups. "I had suggested," he wrote (*6*), "that they avoid trying to figure out the songs' meaning and instead simply 'feel' the music." The drawings led to a discussion of the theme and mood of each song. When the teacher dittoed the words of a song so the comments could be more specific, the kids called for the music again. Apparently the sound of words was more comfortable for them and more comprehensible than the sight of words.

Young people have shown unprecedented interest in poetry during the past few years. They have been listening, chanting, singing, writing, and reading as never before. I think the prevailing passion for the sounds and content of pop/rock has turned them to poetry.

Writing poetry used to be an assignment, and seldom was it enjoyed. Today's children are writing poetry because they want to. Older youngsters are meeting in writers' workshops held in church basements and storefront centers when schools are locked. In Upward Bound groups, even in classes for slow learners, poetry has become a medium for the message of the young.

Much of this new poetry is unrhymed and conversational in tone. Once these youngsters feel free to express themselves, they pour forth their anxieties much as the pop/rock people do.

### *THE SOUND OF THE CITY*

The poems of city children are particularly poignant. What child—or what adult—could write gaily about poverty, pollution, deception, injustice, corruption, and violence? A year ago, when I was compiling my anthology, *I Heard a Scream in the Street* (*3*), I read more than 5,000 poems by children in cities all around the country. Again and again I found cries of loneliness and despair but never any tributes to parents, friends, or teachers. School has evidently been a bitter experience for many of these children. If any of them had an inspiring teacher, or even a kind one, this individual was overlooked. What troubled the poets was the nagging "worry about being a fool."

*I look at these dark*
*heated green walls*
*that make me feel*
*like a rat—*

wrote Deborah Jones of Forest Park High School in Baltimore. Then, as though speaking to herself, she added:

*Run, jump, leap, creep*
*but free yourself*
*before you become*
*beat.*

Her feeling of panic is shared by many young people. Listen to Lucia Martin, once a student in Benjamin Franklin High School, New York, and now lost in a maze of school transfers and dropouts:

*Oh God! I don't want to die in Harlem*
*Yet living here is hell. . .* (*3*).

Ron Chafetz of Mather High School, Chicago, asks, "If I get out now, what then?" and adds:

*. . . here I stand near this post*
*between my past and my future*
*God damn it! I'm scared* (*3*).

Right now there is a dark and lovely rock-folk musical playing on Broadway, *The Me Nobody Knows*. It grew out of an anthology of children's poetry and prose collected by a New York City teacher and published, uncensored, as a mass-market paperback (*2*). The twelve youngsters who make up the cast of the musical

—eight black and four white—talk and sing about their world of poverty and desperation. Their language is simple and harsh and strangely beautiful. Who could easily forget the cry of the seventeen-year-old Clorox who rejoices at his little brother's death because he knows that the youngster will thus not have to suffer the pain of life as Clorox knows it.

Clorox lives in a squalid world, but his compassion is beautiful. The audience which cheered his performance was cheering the triumph of the human spirit—the heroism of "the me nobody knows."

There may not be a Clorox in every class, but in every youngster there is a search for hope, an effort to reach the world inside. For these boys and girls poetry is the key through which experiences are recreated, values are sharpened, and dreams are brought into focus.

Since these poets are part of the pop/rock generation, they have special demands when they meet poetry in print. They say it must be real; nothing phoney will pass—nor will anything too sweet, which is perhaps the most damning judgment of the modern youngster.

Above all there must be feeling. One fourth grader explained, "You like the poet who feels. I mean, poets seem to be just like me. They feel. . . ."

One reason for children's response to Aileen Fisher's *Listen Rabbit* is that the poet's sensitivity shows. Her narrative poem stirs the feelings of each listener or reader.

When a fourth grader reads "This Is My Rock" by David McCord, I can almost hear him thinking, "This is me. It's my rock, my very own."

Young readers in the middle and upper grades warm to the poetry of Carl Sandburg and Langston Hughes. Many are keen about such moderns as Ferlinghetti and Gregory Corso and Eve Merriam. The new black poetry of protest has an enthusiastic following. Anyone who reads June Jordan, Nikki Giovanni, or LeRoi Jones will feel the emotional ferment. Some of these poems remind me of the comment of a young pop/rock fan to Myra Cohn Livingston, the poet, when she expressed uncertainty about the meaning of a pop/rock song. "No meaning," he said. "Just feel. You can read anything in it you want or no meaning at all" (*4*).

## *ONE MORE TIME*

That's a very different approach to reading from the traditional one. It's a very different kind of reading material, too. But the pop/rock syndrome is tremendously significant in understanding our children and guiding them to pleasure from print. Here is the one great factor in our culture which is youth-centered. It screams out the importance of sound over sight, and it shows us that listening is the road to reading. It illustrates the power of first-person commentary in a rhythmical, conversational style. It exacts an emotional commitment that young people long for. It puts feeling above meaning and invites each listener to sing from his own senses.

Pop/rock culture is not what most of us grew up with, and most of us still feel strange about a development which our children take for granted. But we can't turn back the wheels of time and make now into then. We can't recycle the children to fit the old patterns, although some adults are making that foolish effort.

Our only choice—and it is actually an opportunity—is to become so immersed in the sounds of our children's language and in the sense of their feelings that we can sing and listen with them.

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# LITERATURE—A UNIVERSAL LANGUAGE

*Vivian O. Windley*
*The City College of New York*

> . . . children's books keep alive a sense of nationality; but they also keep alive a sense of humanity. They describe their native land lovingly, but they also describe faraway lands where unknown brothers live. They understand the essential quality of their own race; but each of them is a messenger that goes beyond mountains and rivers, beyond the seas, to the very ends of the world in search of new friendships. Every country gives and every country receives—innumerable are the exchanges—and so it comes about that in our first impressionable years the universal republic of childhood is born.

This quotation from Hazard's *Books, Children and Men* (*10*) typifies for the writer the universality of literature. This paper, however, is intended to be more pragmatic than philosophical. To this end, then, serious consideration will be given to the implications of the universality of children's literature as it is related to teaching and learning in the elementary school classroom. Attention will be given to 1) a definitive statement of the author's perception of literature as a universal language, 2) the universal language of literature as an affective experience that satisfies basic needs and interests, and 3) three types of literature that function as an affective experience.

## *LITERATURE AS A UNIVERSAL LANGUAGE DEFINED*

The *American Heritage Dictionary of the English Language* (*17*) defines literature as "a body of writings in prose or verse." Huck and Kuhn (*12*) propose a definition that is much more comprehensive in scope and content. They suggest that:

> The definition of literature is two dimensional, for it includes both the book and the reader. Literature may be viewed as the artistic arrangement of printed symbols and as the experience of the individual as he interacts with the text according to his own meanings.

Dora Smith cites a definition by Fries (*9*): "Literature reflects experience and arrests it for contemplation." Bobbitt (*3*) contends that "Literature is a language window through which one may look out upon the human drama."

For purposes of this paper, the writer embraces a definition that is somewhat eclectic. Literature is seen as a universal language and, like any language, it is a vehicle for the communication or transmission of thoughts, ideas, and feelings through writings in prose and poetry. The language of literature is a communicative experience that is applicable to all people, at all times, and in all places. The language of literature knows no bounds, no age, no race, no color, no creed. The universality of literature gives it unrestricted parameters that fulfill the basic needs of people everywhere. For children the world over, literature fulfills specific needs at various developmental stages of growth and is responsive to childhood growth characteristics, needs, and interests. In this definitive statement of literature and its universality, the writer wishes to explore another important dimension, the affective experience that is provided by literature. Although the interaction of children with books is both a cognitive and affective experience, it is the latter experience that will be a major focus here. Moreover, it is in this area that children can, through their interaction with printed symbols, internalize, feel, emote, and come to appreciate a language that is universal. Miller (*16*) cautions that "the response to literature is something more than a gush of the emotions. At the same time that the feelings are aroused, the rational faculty is called into play, the two working together in a kind of harmony."

## *THE UNIVERSAL LANGUAGE OF LITERATURE AS AN AFFECTIVE EXPERIENCE*

Much of the language of literature, like music, evokes many emotional responses. At one time the language of literature may precipitate feelings of joy, awe, wonder, or delight of the beautiful; at another time, it may evoke feelings of empathy, sympathy, or grief; and yet at still another time, it may evoke inexplicable mood tones. The beauty of the language can help one see, smell, taste, hear, and feel that which can be only perceived intellectually or emotionally. Wherever there is written language, man is able to interact with that language as a structure and the communicative experience results in feelings that are uniquely personal.

Unfortunately, much of the focus in teaching and learning in the classroom is directed toward cognitive processes—knowing. In recent years, however, greater recognition has been given to affective learning. It is this feeling or emotional response which is evoked by literature that gives it its universality. Through books children are able to feel, to emote, to empathize, to internalize.

Bloom (*2*) in his taxonomic deliberations classifies affective learning as that learning that "emphasizes a feeling tone, an emotion, or a degree of acceptance or rejection." He is quick to point out, however, that it is possible in the schools to place such heavy emphasis on cognitive learning that students develop an intense dislike for literature. This negativism destroys the development of positive affective learning. Three literature types will be discussed as good examples, not only for the development of affective learning but as an experience that fulfills certain basic needs. These literature types are poetry, fantasy and folklore, and realistic fiction.

## *POETRY AS A UNIVERSAL LANGUAGE*

What is poetry? Farjeon (*7*) insists it is not *what* it is but *how* it makes one feel. In her poem, "Poetry," she says:

What is poetry? Who knows?

Cannot; and what it is, who knows?

Poetry, like music, is meant to be heard, to appeal to the senses. It is a universal language that speaks to the old and the young. From time immemorial, people the world over have expressed their emotions and beliefs through highly succinct, condensed poetic form. But poetry is personal, and each person who interacts with the printed word brings to it his own emotional responses. He, in a sense, becomes an artist who paints his own picture of word images, or as Merriam (*15*) puts it, ". . . becomes a sculptor and carves words into all kinds of shapes." And yet the uniqueness of each individual response is at the same time a personal, collective, or societal experience.

Poems are experiences that are to be felt before they are understood, and yet like many simple and complex experiences poetical ones are difficult to translate. Poetry can be a delightful experience which creates moods or feelings of pleasure if it is not "dissected" and presented as a didactic, cognitive learning experience.

In the classroom the major aim should be to help children *enjoy* poetry, and for maximum enjoyment it should be heard many times. Merriam (*15*) sums this point up very succinctly in her explanation of what a poem can do for children and those who work with children.

> You may not "get" all of a poem the first time you read it, because the words and the built-in music are so concentrated. Don't let it worry you; just go on to the end and then go back and read it again. You will find that the meaning begins to shine through. For a poem, with its rhythmic effects and use of word-pictures, has more than one level to explore. It becomes like a stone that you skim onto a lake; the ripples widen. New meanings unfold, and you have the pleasure of discovering more and more each time.

Literature is also an affective experience that satisfies basic universal needs. Recent emphasis upon growth characteristics, needs, and interests of children at various developmental stages of growth serves to highlight the importance of books which fulfill and satisfy these universal needs and interests. Piagetian theory on the stages of intellectual development as well as learning theories proposed by Bruner, for example, have greatly influenced educators in the field of children's literature, particularly; and there is a greater recognition of the results of research in child development and learning theories, in general.

What is known about growth characteristics of children or their stages of developmental growth which have serious implications for meeting their universal needs and interests through the language of poetry?

Young children, ages four to seven, are egocentric. They are interested in the self and beyond the self, in persons of the immediate environment only, their parents and siblings. Their language is characteristically first person oriented—I, me, my, or what the writer likes to call "I-itis." The language of poetry speaks to children at this stage of development and brings satisfactions for preoccupation with the self. Several poems, for example, reflect this need to discover the self: Eve Merriam's, "Me, Myself, and I," speaks of a child's desire to be an individual.

There comes a time when each child suddenly realizes that he is different from other children in many ways. Carr (*4*) captures this awareness in her poem, "Different":

Hey, hey! I'm just me!

[redacted]

A
And we're all as different as we can be!

Two other poems that mirror the self are Thomas Hardy's "Heredity" and Eve Merriam's "Thumbprint."

Toward the end of this stage of development children are exploring the world about them in greater depth in an effort to satisfy an insatiable curiosity. Paralleling this curiosity is a need to know, to interact, and to enjoy the immediate, everyday world of animals, pets, the family, and people around them. At the same time the socialization process is beginning to emerge. Poetry as a universal language that speaks to children at this age and stage of development provides a new world of exploration—it provides a "window on the immediate world." Langston Hughes gives a vivid metaphoric description in the poem, "City," while Gwendolyn Brooks writes of a child's disenchantment in "Rudolph is Tired of the City." Fisher's "In the Middle of the Night" (*8*) explains a child's natural curiosity to find out what it's like outside in the middle of the night:

The world seemed so wide and high

[redacted]

through the same kind of eyes.

The need for humorous poetry is not restricted to any age or stage of development. There are the limericks and nonsensical narrative poems of Edward Lear, the collection of tongue twisters and riddles in Carl Withers' *Rocket in My Pocket,* Ogden Nash's sophisticated humor in his animal poems, or Lewis Carroll's nonsense verse.

For older children, particularly, there is a need for beauty and wisdom that only poetry can provide. Old and young alike can experience the beauty of colors as expressed by Mary O'Neill in *Hailstones and Halibut Bones;* or at a higher level of thinking, children can reflect and internalize on the wisdom of Elizabeth Coatsworth's "Poem of Praise," Robert Frost's "Dust of Snow," Carl Sandburg's "Circles," or Langston Hughes's "Still Here."

I've been scarred and battered.

I'm still here! (*13*)

The writer's experience with the poetic creations of children in a school in central Harlem has been both exciting and revealing. Several poets have come into the classroom and, supported by the works of such persons as Richard Lewis and Kenneth Koch, have been able to stir the imaginations of children from kindergarten through sixth grade. There were few restrictions, and the creation of poetry was seen first as an oral expression or elaboration of words and images—fears, joys, wishes. After all, what better way is there to begin, for isn't it true that poetry was initially an ancient and primitive form of speech?

### *MODERN FANTASY AND FOLKLORE AS A UNIVERSAL LANGUAGE*

Children at each stage of development have a need for humor and fantasy. Fantasy provides relief from tension and frees the imagination. Cooper (*5*) has written:

> Fantasy is to the imagination what the seed is to the tree. Let it lie in barren ground and it will not grow. But nourish it and care for it through the years and it will grow into imagination (as dear a possession for the man as fancy is for the child). He who lacks imagination lives but half a life. He has his experience, he has his facts, he has his learning. But do any of these really live unless touched by the magic of the imagination?

What six- or seven-year-old is not delighted by the slapstick humor of Freeman's *Mop Top,* Krasilovsky's *The Man Who Didn't Wash His Dishes,* Parish's *Amelia Bedilia,* or Rey's *Curious George Gets a Medal*?

Children and adults alike emote, sympathize, and develop tender emotions in E.B. White's *Charlotte's Web.* Wish fulfillment and humor are characteristic feelings in Thurber's *Many Moons.* Who cannot experience the joy that comes from reading Kenneth Grahame's *Wind in the Willows* or Selden's *The Cricket in Times Square*? Ten-, eleven-, and twelve-year-olds have a need for and are interested in the world of reality, but they also have an intellectual capacity for sophisticated, satirical, fanciful literature. They enjoy such literary masterpieces as Tolkien's *The Hobbitt,* Juster's *The Phantom Tollbooth,* DuBois's *The Twenty-One Balloons,* Lewis's *The Lion, The Witch, and The Wardrobe,* or Merrill's *The Pushcart War.*

Helson (*11*) suggests that fantasy for children is not only enjoyable—a feeling tone—but that it is important as a vehicle for self-discovery. He proposes three psychological philosophies to support his ideas which are derived from Jungian writings on personality theory. He suggests that the three philosophies are ". . . related both to developmental stages in childhood and to relationships between ego and unconscious—to visions, of selfhood . . . ." He classifies fantasies by types for men and women. Similarly, children have basic needs that relate to wish fulfillment, humor, heroism, tender feelings, independence and self-expression, transformation, and inner mystery and awe. Fantasy, then, becomes a universal need, and it is imperative that teachers make available books which speak to and satisfy these needs.

Dundes (*6*) speaks of ". . . folklore as a mirror of culture." Traditional literature—folk and fairy tales, myths, legends, ballads or folk songs, proverbs, epics, fables—satisfies the need of children to learn and know about peoples of other lands. From the early years children become less egocentric with expanding interests in other cultures; they want answers to the "how" and "why." Informational books serve this purpose to some degree; however, as Dundes points out, folklore is a ". . . way of seeing another culture from the inside out instead of from the outside in." But there is another dimension of folklore or traditional literature. In addition to *knowing* about a people—a cognitive process—there is affective learning, feeling, and internalizing. What child cannot feel or empathize with "Cinderella" regardless of the version or its national origin?

Consciously or unconsciously, covertly or overtly, children delight in the cleverness or trickery of folktale characters who outsmart or outwit fools and simpletons. Children fantasize wish fulfillment which they, themselves, often possess. Helson (*11*) contends that ". . . a bookshelf filled with works of fantasy may be regarded as a gallery of 'self' portraits, in which we may recognize poses and expressions relevant to our own increased awareness of the self."

Folklore as an oral tradition should receive greater attention in the classroom with children being encouraged to write their own folklore. What insights there would be for the teacher.

## *REALISTIC FICTION AS A UNIVERSAL LANGUAGE*

Realistic fiction provides an opportunity for children to explore human problems that are common to all children. Through reading of the problems and difficulties of book characters, children can identify and gain insight into their own problems—problems that arise from loneliness; racial, cultural, or religious differences; growing up; peer relationships; poverty; or physical handicaps.

Ten- and eleven-year-olds, especially, have a need to understand the self, the need for self-identity that is applicable to all children at this stage of development. Jacobs (*14*) states:

> Literature has great possibilities for helping the young reader in search for self. As one identifies his character, he begins for the moment to walk in the shoes and live in the skin of another person and in so doing he begins to forge ideas about himself.

Books, especially the various types of realistic fiction, can serve as bibliotherapy and like psychotherapy can help children understand and cope with their problems. Russell (*18*) has defined bibliotherapy as ". . . a process of dynamic interaction between the personality of the reader and literature. This interaction may be utilized for personality assessment, adjustment, and growth." Huck and Kuhn (*12*) state that:

> Three processes in bibliotherapy correspond to the three phases of psychotherapy: identification, catharsis, and insight. The process of identification is association of self, through projection, with another person. Catharsis refers to release of emotion or removal of suppressed desires, while insight is the emotional awareness of motivation.

At this crucial stage of childhood development, it is important that teachers provide books which speak to children in their search for self-identity and for solutions to their problems, but teachers must not "play therapist."

It is important that realistic fiction not be considered exclusively for use with children who face problems. In this pluralistic society, it becomes increasingly essential that all people become sensitive to human problems. It is hoped that through books children can come to understand and to appreciate other people who are different from themselves and that this understanding and sensitivity will bring about changes in attitudes and precipitate greater acceptance, greater feelings of empathy and humaneness for those whose problems, for one reason or another, have caused frustration and inner conflict. What child, be he Russian, Chinese, Greek, Haitian, Red, Black, Yellow, or White, cannot internalize, identify, and empathize with the plight of Roosevelt Grade? Or what child could not identify with the need for peer acceptance in Beim's *The Smallest Boy in the Class?* or in Estes' *The Hundred Dresses?* And what child cannot understand the feelings of inadequacy and incompetency which were faced by Mafatu in Armstrong Sperry's *Call it Courage* or by Manola in *Shadow of a Bull* by Wojciechowska?

## *SUMMARY*

The recognition that literature is a universal language that provides solutions to human problems; satisfies certain basic needs; evokes emotional responses, feeling tone, empathy, and internalization; indicates certain directives for those who work with young people.

Children must be given many opportunities to interact with books, to enjoy this communicative experience, to "look out upon the world"—other peoples and other cultures—to find the self, to laugh, to cry, to delight in beauty, to wonder, and to identify with others. The experience is there for the taking—if provided by an insightful teacher.

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# WRITER TO READER

*Eleanor Graham Vance*
*Edinburg, Texas*

A poem of mine suggested the title for this article:

Writer to Reader*

Here on this island in a sea of print
We meet, and should I never see your face,
Still we are friends, for I have had a hint
Of what you are: You halted in the race
Of life to give attention to my lines.
Our thoughts have touched. We share the island now,
And for this moment in our life designs,
With all my mental goods I thee endow.
Dear unknown friend, I hope you understand
This is the way I reach to clasp your hand.

The poem speaks of the way a writer and a reader usually meet. I know you must have sometimes paused in your reading, as I have, to wonder "What is this writer really like?" A writer, for his part, often wishes he could go along with his writing to see that it gets a sympathetic reading. (Especially does he wish this when what he writes is going to be read—and perhaps rejected—by an editor!) It would be a good thing if reader and writer could hold a dialogue to tell each other what each expects of the other. But even if I "reach to clasp your hand," I cannot know my reader's thoughts; so we'll have to settle for my telling you what I expect of you as readers—or, more humbly, what I *hope* for from those who present books to children.

First of all, please do as much reading aloud as you can find time for. Reading aloud ought to be fun for both the reader and the listeners, and I can think of no better way to demonstrate to children that adults *enjoy* reading. Remember the story of the five-year-old whose mother asked her, as they were driving along in the car, if she knew the meaning of the different traffic lights. "Yes," said the observant little girl, "red means *stop*, green means, *go*, and yellow means *go faster*." Children learn from watching what we do. If we read aloud, they get the idea that we enjoy it.

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* *A Book of the Year*. Dallas: The Poetry Society of Texas, 1970, 53.

Second, provide as much variety of reading matter as you can. If we really believe in everyone's right to read, then every classroom must have books that are not only on different subjects but also on different levels of difficulty. This brings up the matter of adaptations of classics. Some people throw up their hands in holy horror at the thought of adaptations, but why should we limit the right to read *A Tale of Two Cities* to only those pupils with the ability to comprehend Dickens? Some object that a pupil who reads a simplified version will probably never know the pleasure of reading the author's original. I don't think this necessarily follows, but one thing is sure: a pupil will never read the original if he just plain *can't*. I think it's better for a boy to read even a so-called comic book version of *A Tale of Two Cities* than never to know anything about Sidney Carton and Charles Darnay and Dr. Manette and his daughter, Lucie. Then maybe he will take in something more during class discussion and be tempted to dip into Dickens. The fact that we want to awaken young people to the delights of good literature should not prevent us from allowing them to get what they can at whatever level they can get it, hoping that tomorrow they may be able to do better—and not forgetting to provide reading material for that tomorrow.

I feel very strongly about this matter of adaptations, perhaps partly because some years ago I adapted both *Black Beauty* and *Robin Hood*. Do the people who turn up their noses at adaptations really want to do away with *all* of them? No Bible stories? No Lamb's *Tales from Shakespeare*? No simplified accounts of the *Iliad* and the *Odyssey*? No early introduction to the heroes of mythology? No stories from Chaucer until they come to Chaucer himself? I don't think the purists would go so far as to do away with all of these. I guess it is usually the work of one author that they wish to protect. But if the adaptor does his work well, he labors to preserve the flavor of the original. I ask only that you read adaptations as you would any other books and then decide which ones are good for your young readers.

I remember being half amused and half angry a year or so ago when I saw a publisher's advertisement that went something like this: "The real *Robin Hood*. Not a watered-down adaptation. Every word just as it was in the Howard Pyle original." Granted that the Howard Pyle version was a wonderful one, what of the several hundred years before Howard Pyle? Written versions of *Robin Hood* go back before the year 1500. But maybe the advertisement just proves that sometimes a reteller of tales can do such a creative job that readers think of him as the original author.

Then think what a loss it would have been if Howard Pyle had never made his version.

The business of adapting is hard to explain to children. I get many letters saying, "I like *Black Beauty* because I like horses. Have you written any other horse stories?" So I sit down and answer, telling the children that *Black Beauty* was written nearly a hundred years ago by Anna Sewell; that it is a big, thick book that I'm sure they can find in the library; and that now that they've read my short and easy version, they might like to try the long one. I hope that at least some of them accept the challenge.

The subject of letters from children brings me to my third hope: *Please* don't make children write letters to authors. Last month I received eleven letters about *Black Beauty* from one school, all mailed in separate envelopes to Random House, all forwarded to me. In that case, since they all wrote from the school address, I was able to answer them all with one letter. There is nothing more heartwarming than a *spontaneous* letter from a child, and I'm sure most authors like to get one. But for every one of these, there are three or four dozen of the "assigned" kind. ("In our class we are writing letters to authors.") I know many teachers think this is a good way to show children that authors are real people. This reminds me of the story about the boy who went to the library to find a book about Jefferson. "How about this?" asked the librarian, showing him a copy of *The Living Jefferson.* "No, I'm afraid not," said the boy. "The one I want has been dead a long time." Well, I suppose that assigning letter writing to authors proves that the authors are *alive,* but you have to agree that an author can't be writing books while he is answering letters; and most authors have to struggle for time.

My last and greatest hope is that you will encourage every creative urge of your children. This is too big a subject to take up here when I can only touch upon it lightly, and I'm sure you all have your own ways of nourishing creativity. I wish we could all share them. To add to them, I am recommending at the end of this article a few books for you or for the children. If you know these books, you know how they can stimulate imagination in many different ways.

Speaking of imagination, I would like to tell you three little stories about the creative process. The first is about the sculptor, Gutzon Borglum, or rather about the maid who cleaned up his studio day after day and observed his work at various stages. One day she brought a friend with her to show off a newly finished piece of the sculptor's work. "What I don't understand," she said to the friend, "is how Mr. Borglum knew that statue was in that hunk of marble."

The second story is about a young boy who was very good at whittling graceful little horses out of wood. "However do you do it?" asked an admiring friend. "Oh, it's easy," said the boy. "I just cut away the part that ain't hoss."

The last story, one that I heard many years ago from poet Arthur Guiterman, is about a little girl who was drawing a picture. "What are you drawing?" asked her mother.

"A birdie in a cage."

"I see the cage," said the mother, "but where is the bird?"

And the little artist answered, "The birdie's in the pencil yet."

All three of these stories say the same thing—that the creative artist liberates or discovers or gives life to something that is already there. And that is something like what happens to a child when writer and reader come together in exactly the right way, and a story or an event or a character comes alive in a child's imagination.

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# CHILDREN'S REACTIONS TO BOOKS

*Helen Huus*
*University of Missouri at Kansas City*

Among the 1,000 entries submitted by children in grades four to six in an essay contest during National Library Week in 1960 are the following reasons given for reading:

> By opening a book, I can travel without moving a step from home.
> I pretend I am the hero and have the adventures he does.
> I enjoy myself and learn at the same time.
> I like to read because when I am lonely, it satisfies my loneliness.
> It gives me confidence in myself when I am downhearted.
> It gives me something to do when it rains and I can't play baseball.

Children read for the same reasons other persons do—for pleasure, for escape, for identification, for vicarious experiences, for information, and for personal improvement. Reading satisfies their needs, and so they read; when reading fails to meet their needs or when reading becomes too laborious to give them the answers they want, children stop reading and utilize other means in their environment to obtain the information they desire, such as asking parents and friends or looking at pictures and television.

One of the chief purposes of teaching anyone *how* to read in the first place is to provide him with the independent means of utilizing reading throughout his whole life, hopefully for his own enjoyment and benefit and for the contribution he can make to society.

If teachers are to make lifetime readers of their students, one of their cues to successful teaching is to note the pupils' reactions to books in order to capitalize on the interests revealed, the books that are enjoyed, and the influences that reading has on subsequent behaviors.

Reactions to reading can only be identified by means of the reader's expressive acts—by what he says and writes, what he makes or does—and by an interpretation of his actions that imply feelings and emotions. Overt actions are more readily identified than innermost feelings, for the latter are not usually the result of one traumatic experience, though they may be, but are the gradual accumulation of ideas and thoughts over a period of time. The resultant emotion or opinion or attitude of the individual may be several years removed from his actual reading of the crucial material.

However, children's immediate reactions to books do indicate their present feelings, evaluations, interests, and preferences, which contribute in the long run to their backgrounds and personalities. An easy way to obtain the children's reactions is simply to ask them about the books they have read.

## *WHAT CHILDREN SAY ABOUT BOOKS*

Recently, 117 children, ages eight to thirteen who attended various schools in and near Kansas City, volunteered to tell about books they had read. Librarians in schools and public libraries asked those cooperating to fill out a simple questionnaire stating name, age, school, and the author and title of the book read and to complete the following phrases:

1. I liked this book because. . . .
2. I did not like this book because. . . .
3. I like to read about. . . .

While the sample is not large and no attempt was made to stratify it in any way, the comments these children made corroborate previous studies of children's interests and preferences at similar age levels.

The answers show that these children, too, like best by far books that contain a mystery, riddle, or surprise. They want exciting books that are fast moving, have a happy ending, and contain adventure or information.

Tracy, age nine, tells why *Harriet, the Spy* is a good book: "It was exciting. She was smart. And it had dangerous missions. She got to be editor of the *Gregory News,* the school paper. She was editor of the sixth grade page. In the page she wrote her spying experiences. Catherine Golly, the maid, helps Harriet along with her problems so at the end everything works out just fine."

Truman, also age nine, liked *Half Magic,* by Edward Eager, because "It was funny and things kept coming in that you wouldn't expect." Conrad, age nine, liked *Phantom Tollbooth* because "It had a lot of fantasy." Nancy, age ten, liked *Betsy's Busy Summer,* by Carolyn Haywood, because "It was fiction and it was funny and make-believe. And the story was a happy story. It had ten chapters."

Children like excitement, adventure, and mystery; but they also want "good" things to happen, to have the problems come out "just fine" for the hero or heroine, and to feel that "All's right with the world."

In addition to exciting plots, these children like characters who are the same age or just a little older or younger, and they like their characters to talk. They enjoy stories of real people—biography, autobiography, Indians, and family life.

A sample answer from a ten-year-old girl indicates that she liked *Cheaper by the Dozen* because "It tells how it is with twelve children in the family, plus a fun loving but strict Father, a rather quiet mother, and a big house with grape arbors in the back!" Another from a twelve-year-old who liked biography states, "It told how he felt rather than just facts. I liked the conversations he had with someone else." And a ten-year-old liked *The Lion, The Witch and The Wardrobe* because, "It had children my age and it seemed (while you are reading) all so real! Plus I like to think that animals can talk."

Preferred stories are funny or true-to-life ones that explain well or contain magic. On the other hand, one twelve-year-old did *not* like a biography of John Hancock because "It jumped around a lot. First he was 5, then 15, then 10, etc." A ten-year-old boy did not like the part in a biography of Lou Gehrig (by Frank Graham) because "Arthur Irwin, a Professional Baseball Scout, told Lou a lie. That lie was that a Person could play ball in summer and it wouldn't interfere with school work."

An eleven-year-old girl did not like one book because it was "too long" and then went on to say, "Some of the things in there did not need to be mentioned." A ten-year-old boy felt the same way about a sports book that contained "Sometimes too much of nothing." A nine-year-old stated, "On the other hand it was kind of boring. The characters weren't good and Bill and Janey were big mouths."

A nine-year-old did not like the parts in the book where "Norma didn't get to ride Benny (a horse) in the parade. Norma's class didn't get first prize on their float. I felt sorry for Benny when he got stuck in the mud." Another said he did not "like things about blood and stuff like that because it gives me a funny and oozey feeling." The replies from two of the boys reveal a little something extra about them. A twelve-year-old put "Not Applicable" on the blank stating why he did not like the book, and a ten-year-old stated flatly about a science book, "Some of the experiments didn't work."

Two girls, one twelve and one thirteen, wanted love stories, but most of the children preferred animal stories next to mysteries. Horses and dogs, as one would expect, received special attention, though foxes and bears were also mentioned. Dave, who was ten, liked *The King Bear* and stated it was "the best bear book I have read" but failed to say why. One nine-year-old said she liked to read about "horses, cats, lambs, monkeys, pigs, cows, birds, rabbits," and then ended by saying, "I like animals."

Surprisingly, the topics and aspects of books enjoyed by these children did not reflect a great interest in science but did emphasize real people and true experiences of individuals and families. History and stories of different countries were mentioned by about a fifth of the group; other topics on which pupils gained information were science, airplanes, engineering, war, and sports while individual pupils mentioned religion, food, and the body.

Interest in fairy tales tapered off after age ten, and sports gained readers from ten up. Animals, mystery, and biography were of most interest from ages nine to twelve, and more nines and tens mentioned humor as a favored characteristic than did older groups.

While information regarding interests and preferences needs to be gathered on a large scale to supplement that already available, this limited survey does indicate that these readers are still children and interested in topics and types of books that children in the past have also found interesting. Teachers should not ignore some of the older books in making selections for children's libraries because a really good book appeals to successive generations of children until it eventually becomes a classic. A nine-year-old sums up reasons for liking a book by saying, "It had life in it. It had adventures good and bad. I just like it."

Another way in which children may indicate they have really absorbed a book is by making reference to their reading when an appropriate situation arises. One first grade group, after hearing the poem "Tired Tim" by Walter de la Mare, had great fun whenever a child could not keep his head up in the morning or drooped in late afternoon. Someone was sure to call the laggard "Tired Tim," and then the whole group would chuckle and share the joke.

Children lift other expressions, such as "frabjous day" from Lewis Carroll's "Jabberwocky" or "misty moisty morning" from the Mother Goose rhyme, to describe their feelings or the day.

While the expressions are descriptive in themselves, those who understand the allusions enjoy them doubly.

Readers also supplement their information in history, science, or geography classes as they relate from their reading some of the details that textbooks must, of necessity, omit because of space limitations. Think what books can do for history—such as those of Rosemary Sutcliff on ancient Britain, Genevieve Foster's world of books, and Gerald Johnson's trilogy of history for Peter —or for science—such as those by Herbert Zim, Arthur Clarke, and Margaret O. Hyde. Other lands come alive in books like *Big Tiger and Christian*, one of my favorites by Fritz Mühlenweg, which tells of two boys about twelve years of age who travel through Sinkiang province to Urumchi. The tribal life of the area is colorfully detailed, and the adventures of the two young heroes are exciting enough for even discriminating readers. *The Wheel on the School*, a Newbery winner, shows children in Holland trying to get storks to return to their village, and *Ramón Makes a Trade* tells a simple story of a boy who wants a parakeet. Books like these enrich the backgrounds of the pupils and help them see and feel how it might be to live in another time and place. When books convey this feeling and readers share what they have learned with others, teachers recognize this as reaction to reading and note that pupils are putting ideas they gained to practical use.

## *WHAT CHILDREN WRITE*

In addition to what children say, what they write reflects their reactions to what they have read. Reading serves not only as a spur to writing but the reading-writing-reading cycle is circular and continuous. Children who read and react through writing often find that writing is facilitated by the reading they have done, for it has provided them with ideas to communicate. Once children acquire a background and the necessary writing skill, they absorb still more ideas, information, and attitudes through reading. Since this background is ever-enlarging, pupils profit even more from subsequent reading; thus this cycle continues for those who are competent readers. The cycle works in reverse for those who have difficulty in reading; breaking into this circle is the teacher's job so that all children can gain the pleasure and information that reading brings.

When children have learned to read well, their written compositions tend to reflect the style and content of the material they have read. Unconsciously, pupils ape the pattern set before them; a few samples from their writing will illustrate.

The first two are fables written by disadvantaged children after having read Aesop.

> Once upon a time there was a pig and a cat. The cat kept saying old dirty pig who want to eat you. And the pig replied when I die I'll be made use of, but when you die you'll be just rot. The cat always thought he was better than the pig. When the pig died he was used as food for the people to eat. When the cat died he was bured in old dirt.
> Moral: Live dirty and die clean.
>
> Barbara, age 11

> Once a boy was standing on a huge metal flattening machine. The flattener was coming down slowly. Now this boy was a boy who love insects and bugs. The boy could have stopped the machine from coming down but there were two ladie bugs on the button and in order to push the button he would kill the two ladie bugs. The flattener was about a half inch over his head now he made a decision he would have to kill the ladie bugs he quickly pressed the button. The machine stoped he was saved and the ladie bugs were dead.
> Moral: Smash or be smashed.
>
> Kenneth, age 11

The definite pattern of the fable in these two samples is apparent —the animal characters, the terseness of writing with little or no description, the action that moves definitely forward, and the moral at the end, in these cases, explicitly stated.

Reading poetry is perhaps the finest springboard for the writing of poetry. The following poem, written by a sixth grade class, is reminiscent of the Hallowe'en poem by Harry Behn:

Hallowe'en

Ghosts and goblins
Witches and bats
Jack O'Lanterns
Fierce, black cats,
Soaped-up windows,
Trick 'r treat,
Costume parties with
lots to eat,
Skeletons walking
In the night—
Offering to all
An awful fright,
Spooks and spirits
that can't be seen—
All of these make
HALLOWE'EN.

From the same group came this poem by a girl:

### Football

I like Fall
Best of all;
When leaves come down
All over town.
Football fans hurry
Here and there;
And my daddy puts on
Long underwear.

After the fans watch
The gridiron stars,
They all scramble
To their cars;
And my daddy comes home
With a broken nose,
Ten sore toes,
And a dozen other scars.

—Cheri

And this one by a boy:

### Wild Bill Hickock

Wild Bill Hickock got bit by a snake,
Fell over a cliff, landed in a lake,
Wild Bill Hickock was stabbed a lot
And often found that he's been shot.

But Wild Bill Hickock was a stubborn guy
And ever so often refused to die.
He was mortally wounded most every day
But he always arose and rode away.

—Billy

Notice the rhythm pattern in the first few lines of this poem, which was written recently by a fifth grader in Kansas:

### Space

We are late!
We are late!
They have launched Apollo Eight!
Cried the Commies as they ate.
So they put their heads together,
(Upon their heads were stalks of heather.)
And they came up with Sputnick 12,
And they launched it while we delved,
For a comeback of our own.
And as Nixon yells for loans,
The people pay taxes and shake their bones.

—Craig

And here is a definite take-off on Carl Sandburg's "Buffalo Dusk," which the young poet acknowledges in a parenthetical note. He calls his poem

Teacher's Dusk

Those who saw the Teachers are gone,
And the Teachers are gone.
Who once all growled and screamed in a
great pageant.
Those who saw the Teachers are gone,
And the Teachers are gone.
—David

Thus do children react to some of their reading!

Another type of written response is the book report. This timeworn reaction demanded of some children once they have read a book has become an anathema to many. A young friend of mine who recently completed the third grade is an exception. He is an avid reader, follows one author until he has read all the books by that author that he can find, and loves to tell about his reading. In fact, his teacher finally told him that he need not make any more reports for the year (this was about Easter time), for he had already completed so many she hardly had time to read them! Jimmy agreed to make a list of the books he had read and to let me have some of his reports. He also agreed to evaluate each book to let me know whether I should read it. His evaluations were categorized "excellent," "good," and "fair," and not all books by the same author received the same rating. On the list were 39 books, but I do not know the elapsed time. Jimmy's favorite authors included Beverly Cleary, who wrote the Henry Huggins books; Clyde Robert Bulla, author of *Squanto* and the *Secret Valley;* and Matt Christopher, writer of seven sports stories on Jimmy's list, including *Baseball Pals, Little Lefty,* and *Touchdown for Tommy.* Also listed were *The Gold Bug* by E. Poe (rated "ex."), *Gulliver's Travels* adapted by Leonora Andrews, and *The Enemy at Green Knowe* by Lucy Boston. An interesting and varied list, all neatly written out in cursive!

Jimmy's report for *The Enemy at Green Knowe* is this:

> One day when the boys were up in the attic, they looked in a closet and found that the shelves could be taken out. After they took the shelves out they saw a little door. They opened the door and saw a room filled with fuzzy stuff. They went in and saw a bat with writing on it. It said, "The Language Known to Us, As crossing the river." Then it had some strange letters after it.

The teacher commented that his report made her want to read the book and noted that Jimmy had trouble with the following words: *alchemist, continuous, venomous,* and *exhilarating.* Third grade, remember!

This teacher prepared a dittoed form for book reports that includes the date, pupil's name, name of the book, author, and the following questions:

Could this story be true?
Who or what is the story about?
What places does the story tell us about?
What does the story teach us? (For one book, Jimmy had written "Nothing.")
Draw a picture (on the back of the paper) of your favorite character or scene.

While book reports can degenerate into a chore, they can also be a means of noting children's reactions to their reading. Sometimes just varying the pattern provides needed incentive, such as retelling the story from the point of view of one of the characters. One report of *Treasure Island* is written from the point of view of the book itself. This is how the sixth grader started:

> I am *Treasure Island.* I laid on the shelf for a long time until a boy took me down, leafed through my pages and started to read.

The few examples given here indicate ways in which students reveal their reactions to books through their writing in addition to what they say about books.

## *WHAT CHILDREN MAKE*

Children also react to reading through creative activities like painting, drawing, crafts, or sculpture. Some of the children who read or hear Katherine Milhous's *The Egg Tree,* which is the story of an Easter egg hunt, want to make their own egg trees; so in libraries and schoolrooms, throughout Pennsylvania at least—for this is a Pennsylvania Dutch story—children are busily coloring and decorating eggs for their trees.

Likewise, those who read Mary Norton's *The Borrowers* or others in the series about these little people, like to duplicate the home of the Clock family. Some are made in shoeboxes as peepshows; others are dioramas in cardboard cartons from the grocery store. The story tells of father Pod, who borrows by using his needle and thread as mountain climbers use rope and pitons; of anxious mother Homily who likes human beings that write a fine hand, for their old letters make such attractive wall paper for her living room when it is pasted with the writing put on vertically; and daughter Arietty who wants to go "borrowing" with her father and finally is allowed, though she is later "seen" by a "human bean," thus jeopardizing the family's existence and forcing them to migrate. But Arietty has a pleasant existence: her bathtub is a thimble; she sleeps in a safety match box; and she uses a spool for a chair. The illustrations by Beth and Joe Krush are in sufficient detail to allow children to replicate them exactly.

One third grade class, whose teacher read them *The Little House in the Woods,* had to make taffy when Laura and Mary made taffy, from the recipe given in the book. The children had to dip candles when Laura and Mary dipped them and became properly impressed with the amount of work involved, even to make a candle of a half-inch in diameter. Later, when they located a candle mold and were given permission to use it, the children discovered what a really great invention it was. They had to string cranberries and make paper chains for the Christmas tree, just as Laura and Mary had done. Since this school was located in the Middle West, these children were learning some of their own pioneer history along with their enjoyment of reading and recreating.

Another class who read *Pinocchio* wanted to make a puppet show and started making string marionettes. Marionettes are difficult enough for sixth graders, but these fourth graders wanted to try. Long before the marionettes were ready for use, the children's interest had waned. But an older group could have successfully completed it. Simpler puppets can be used by younger groups, and shows can be given for other grades or for the total elementary school. After all, Tony Sarg made a career of just this; and puppet shows of various types, from the simple to the complex, provide a means for children to express the enjoyment they find in reading.

Writing plays from stories and presenting them in an assembly program complete with costumes is still another creative activity that may stem from reading. Arthur, a fifth grade nonconformist, made a play of one of the Dr. Seuss books and directed its production, using his fellow students—many of whom were juvenile delinquents on parole. During the whole time required for this performance, Arthur was not once reported for an infraction, exemplifying some concomitant benefits.

Several other types of creative activities can be undertaken—drawing the characters, dressing dolls, making murals, drawing pictorial maps and placing characters in their proper geographical setting, and creating posters or book jackets or advertisements. Pupils will have their own suggestions, too, and sharing the products will reinforce the pleasure and stimulate further reading.

## *WHAT CHILDREN DO*

Like all education, reading should have far-reaching practical applications throughout a person's life and be reflected in his actions. Social and ethical values may be learned through reading the folklore, myths, and legends of a people; problems of growing up are treated in many books for young children, from *Little Pear* to *Little Women;* and sympathy for the underdog is exemplified in books like *The Hundred Dresses, Crow Boy, The Jazz Man,* or *Blue Willow.*

Children and young people turn to books to help themselves solve personal problems concerning prejudice or loneliness, manners or morals, and vocational pursuits or hobbies. In books children seek answers; and if they find them, their reactions take the form of changed behavior toward people and of improved skill competencies. They could also utilize what they have learned to occupy leisure time.

Thus, reading serves as the springboard and spur to individual actions, both oral and written, creative and behavioral. The influence of books may be far reaching at its ultimate and ought to be, for the purpose of reading is to enhance life.

# DEVELOPING INTEREST IN BOOKS

*Mildred A. Dawson*
*Sacramento State College*

"You can lead a horse to water, but you can't make him drink" —the implication so far as reading and books are concerned being that you can provide reading matter for children, but you can't make them read it. Anyway, who wants to *make* a child read? To do so is to build antagonism, revulsion, indifference, and a feeling of inadequacy. I recall a beautiful, well-dressed fifth grade girl whom I tried to help on my own time. She scarcely read at first grade level though she had a high IQ and did well in nonreading subjects. Her mother was a club woman, a civic leader, the wife of one of my colleagues at the university. She was constantly putting pressure on the campus school and insisting that her daughter be taught to read. I was making slow progress and felt encouraged. Suddenly one day the girl turned to me and actually shouted: "You can't make me learn to read. I'm not going to learn. My mother is always bugging me. As soon as I get home, she says, 'Change your clothes, then settle down here with your books. You are to read until dinner time.' Then after dinner she says, 'Now get your books and work until time to go to bed. I want my girl to become a good reader.' So I never have a chance to play at home. Then you come along and take me out of PE and music and art. I hate reading!"

Personally I have always rejected the literal meaning of the old saying about the horse and water. Of the hundreds of horses I have known and dealt with in my life, I have not known one that would not drink if led to water. You don't have to *make* the typical horse drink. You don't have to make the typical child read. If from the beginning we approach reading instruction and the use of books properly, he will read of his own accord and do so with pleasure. Of course, we do not crowd out other desirable activities, but we may expect voluntary reading when the situation is right.

So my first point in discussing the development of interest in books is that books should be accessible to all children at all times and that there should be time set aside for reading. We shall begin by considering the responsibility of schools. Every elementary and high school in our country should have both a central library and selected books in classroom libraries, or the Right to Read project cannot fully succeed. During periods of reading instruction, the children are merely introduced to necessary reading skills, and these skills can be mastered only if the child reads and reads and reads in self-selected books. A golfer takes lessons, but he becomes proficient only as he plays often on his own. So let each of us do all we can to see that every school child is surrounded by books so varied that he can find books of difficulty and subject matter best suited to him. Trade books will provide pleasure; factual and reference books will yield information that he cannot find elsewhere.

Not only should school children be surrounded with books but the daily schedule should include time for free reading. True, state laws and local regulations require the teaching of a multitude of subjects and the provision of so many services, such as school banking and collecting lunch money, that teachers have difficulty finding enough time for reading instruction at all. School curricula need a massive rebuilding so that there is more integration among related subjects and more alternated teaching of subjects (as teaching history three days a week and health and nutrition two days a week at the same time of day). In any event, children must have time in school to use the books in the classroom and school libraries.

Teachers should read to children every day from books that are worthwhile, appropriate in level of interest, but probably too hard for them to read for themselves. Books such as *Charlotte's Web, Wind in the Willows, Alice in Wonderland,* and almost any Newbery Award book are best read to children since these books have appeal before most children can read them for themselves. Too, a good book that the children have failed to notice and choose may be started by the teacher and then left for a child whose interest has been aroused to pick up and finish for himself.

It is especially important for the home to make books accessible and to provide countless opportunities to handle them. Briefly put, the individual child should *own* books, *hear* books, *look* at books, *read* books, *share* books, *borrow* books, *value* books.

In the first place, let the child own books; even go to the shop to select and buy them. Ownership of anything—stocks, a home, a book—breeds interest. Try to see that some of the books are trade books of high quality and real beauty—even though these are very expensive—and teach the child to handle them with love and care. When cheaper books are bought—possibly at a drug or grocery store—help to choose the better quality books in terms of story, illustrations, and construction. Some really worthwhile books are available at the lower prices.

Let the child hear books read, often during the bedtime story hour. Nursery rhymes, simple poems intended for children, folktales, stories about pets and other domestic animals and other children, stories that have humor and intriguing suspense—these are what children should hear through telling and oral reading. They should also look at books, especially at the pictures; but sometimes the very young look at the print and pretend to read as they turn the pages of their favorite books which they know by heart. I recall my niece who expected to be given a free fashion sheet every time we took her into a large department store. As my sister and I shopped, she busied herself with reading aloud from her "magazine." (She was pretending, of course.) Many an afternoon I came home from teaching to find her sitting in her little rocker and reading to herself. "Sh!" she would say. "Be quiet. I am reading." And I'd tiptoe to my room so as not to disturb the three-year-old reader. Needless to say, she has grown to be a lover of books.

The very young child is largely confined to looking at the pictures in books. This is a fruitful experience as there are skills involved in interpreting pictures, and it is well for a child to begin doing this early. Even an older child should be encouraged to look through books as he tries to choose one to buy, to read next, or to borrow from the library. Browsing through a book can be fun, and we should encourage a child to get this pleasurable experience. The ultimate, of course, is the actual reading of books that a child does on his own.

Another experience that every child should have is that of sharing books with members of his family and with friends of all ages. He may have a favorite in which there are pictures he wishes to show and selected passages he wants to read. Possibly more often he will tell the story he has so much enjoyed. A mother or a father can do much to enhance a child's love of books by showing genuine interest whenever he wants to share with them a book he has enjoyed.

If the family situation does not permit the purchase of many books for a child, he may secure a library card and select books that appeal to him. Even with a plentiful supply of books that he owns, a child will do well to extend his supply by borrowing from the public library. Thus the borrowing of library books should be an almost universal experience for children. Too, they may borrow from one another. Then we get deep into the problem of the care of books. No page must be torn or soiled; no book back must be broken; no books should be lost or left outdoors overnight. The borrowed book must be returned in as good a condition as it was when received.

These various experiences of owning, listening to, looking at, and reading self-chosen books at home tend to lead to a child's valuing books and being interested in reading them. If from the child's earliest years he has fruitful and varied experiences with books, he is likely to develop a lifetime desire to read for recreation and other useful purposes.

Even so, making books accessible and providing time to read them are only part of the practices that lead to an interest in books. Children need to see the adults about them reading regularly with avid enjoyment. A father, a mother, or a teacher who constantly urges a child to read and then does little voluntary reading himself is not very impressive. Another famous old saying states: "What you are speaks so loud that I cannot hear what you say." So be readers; let the child see you reading; let him hear you discuss what you have read. Then you will need to preach little or not at all about a child's showing interest in books. He is likely to imitate interest, to feel it, on the basis of his observation of the adults around him. Tommy should not be the only one to haunt book shops and own a much used library card.

Thus far we have dealt with the awakening of interest in books on the part of the child who is about to learn to read well or is already reading with considerable success. However, there are all too many children who do not like to read, avoid doing so, and choose almost any other activity. How can we develop in these boys and girls an interest in books? This can be and often is a very hard question to answer.

Analysis of the records of juvenile delinquents has shown that the majority of them do not read well and have had trouble in learning to read almost from the beginning. The Right to Read project must face this situation squarely and promote practices that will prevent such reading problems from arising. We must ascertain exactly why some children have trouble in learning to read, for how can they feel interest in books and reading if they constantly fail in their efforts? Some probable procedures follow. One is individualization of instruction so that each child can launch into reading lessons only after his maturity, his language proficiency, his store of concepts based on experience, and his desire to read are known to be adequate for the job. He may need special materials that fit his background and interests—the so-called language experience program where he learns to read the sentences he himself has stated, the books that feature the same kind of home and community in which he is growing up, and the library books that reflect his built-in interests; where he uses audio-visual instructional materials that teach what he cannot yet learn through independent reading and that are lead-ins to easy, well-illustrated books that further such learning; and where he listens to the teacher tell, explain, and read orally what is to be found in books, especially in the easy-to-read books in which the poor reader can follow up for himself.

Older children who have a deep dislike for reading because of past difficulties and failures tend to require individual attention by a well-trained person who works on the basis of a detailed diagnostic report. This person, knowing much about the child's personal interests, will look for simple materials that deal with the child's hobbies and special interests and will often use the language experience approach where the child's own statements are recorded and then read back. Also, materials close to everyday needs for reading are used; for instance, road maps, traffic signs, directions for using supplies bought at drug stores, forms and questionnaires sent out by governmental agencies, rules for playing various games, and other practical, common materials. Since remedial reading cases are predominantly boys, I have found that simple science books appeal to these children. Rarely can a remedial teacher use primary reading books successfully with older children. Such books really "turn them off." It is essential that reading matter for older, poor readers be intrinsically interesting to them.

One likely source of interest is the use of simple, factual material that is needed to carry out classroom and individual projects. Books that richly illustrate hobbies are also interesting. Here, too, the teacher may read appealing books to his individual remedial pupil and, if the material is sufficiently simple, put it into his hands.

Back of any effort to make books interesting to children must be a guarantee of success in reading, an abundant supply of materials that are of known appeal, readily accessible, and made available through setting aside time to do the reading. Remember that interest in books is contagious and that contact with both younger and older persons who are lovers of reading can do much to influence children favorably. In this context, the remark of a home economics teacher seems pertinent. She had just stated that she always looked through her magazines first for the poems and read them before noting anything else. She then explained: "All through the upper grades and high school I had despised poetry. My teachers did not genuinely like it and put on such 'agony' in teaching poetry. One day late in my senior year, a substitute teacher appeared in English class. She was a local housewife who had never taught school. She opened a book and began to read poetry. She said nothing, just read with real relish. I listened spellbound. This teacher was with us for a week. By the end of that time, I had learned to appreciate the rhythm and especially the imagery of poetry. All I had needed was a teacher who really loved it and read poems for her personal enjoyment."

We can bring all children to an interest in books if we really try.

# TEACHERS, PROGRAMS, AND CHILDREN

# THE QUEST FOR INCREASED READING COMPETENCY

*Nila Banton Smith*
*University of Southern California*

The quest for reading competency in America began with the famous law of 1647 which reads in part:

> . . . that learning may not be buried in the graves of our fathers in church and commonwealth, the Lord assisting our endeavors—it is therefore ordered that every township in this jurisdiction, after the Lord hath increased them to fifty householders, shall then forthwith appoint one within their town to teach all such children as shall resort to him to read and write (*3*).

Even though they had no organized schools, no trained teachers, no instructional materials except the ABC and the Bible, these people in early Massachusetts were seeking reading competency for those within their jurisdiction.

This beginning was but a tiny thread in a great cable of developments in reading instruction that followed through the years ahead—a cable intertwined with innumerable philosophies, methods, and materials; a cable whose strands alternately have been accepted, discarded, praised, and blamed; a cable which has been changing and growing in magnitude; a cable which always has been the object of search for higher levels of strength and adequacy.

The quest for reading competency during the past three and a quarter centuries of American life is a fascinating story to pursue, but trends with which we should be concerned in preparing children for the twenty-first century are much too urgent to be neglected. So this discussion is concerned with the present and the future in which we must continue with increasing effort this earnest quest for reading competency.

## *INCREASED ATTENTION TO SELF-CONCEPT*

The increasing emphasis on self-concept as a factor influencing a child's learning in school is a matter of significance to us who are concerned with reading instruction.

Dewey advocated interest as the key to effort in learning; Kilpatrick used the term "purposeful activity" as the fundamental learning concept; Thorndike thought "readiness" was the self-starter; and other psychologists have used such terms as desire, incentive, inner drive, and so on. Recently, however, attention has centered on self-concept as the springboard which touches off all of these other desirable learning attributes. Several studies (*8*) show that there is a positive relationship between feelings of self-worth and school achievement.

Applied to reading specifically, if a child is failing in reading, he may develop a low concept of himself in that subject and thus hinder his future success in learning to read. Further, this low concept may in turn spread to the reading materials, the teacher, other subjects, and the whole school with disastrous, final results.

Research is revealing that teachers, often unwittingly, tend to lower self-concepts in general rather than enhance them.

Leacock (*9*) reports a study resulting from classroom observations in New York City schools. So far as the observers could tell, the teachers were free from racial prejudice; some of them were themselves black. According to the data gathered, both the black and white teachers who taught in the low income black schools expected low achievement of their pupils and expressed this expectation in many ways in their dealings with the children every day, ". . . subtle ways which served to teach lower class children not to learn."

The child from the disadvantaged home usually comes to school in the first place set not to learn and thinking he can't learn. His first learning task is associated with reading. He doesn't do well. His self-concept in reading is lowered at the beginning. If his teachers think, "He's disadvantaged. What can you expect?" his self-concept sinks lower and lower. As he passes through the grades, eventually he may drop out of school mainly because he cannot read well enough to do his school work.

On the other hand, a deficient reader may come from a well-to-do, cultured home. All schools in the best neighborhoods have their deficient readers. Perhaps when a student in one of these schools has trouble with reading, he begins to think that it may be because he is dumb; and often the teacher's irritation with him contributes to lowering his self-concept. Under these conditions he becomes increasingly discouraged and decides it isn't worthwhile to try.

Preston (*11*) drew the conclusion from a study that 78 percent of the teachers were irritated, annoyed, and vexed with poor readers, and showed their feeling about them in many direct and obvious ways. Surely this attitude is not helping such children to improve the self-concepts of their reading abilities—improvement needed to overcome their problems.

There are many wonderful teachers, of course, who do hold good expectations for their pupils' achievements and who do help them when they are failing rather than scold them or show annoyance, but recent research indicates that many teachers are unconsciously militating against the building of better self-concepts instead of contributing to their development.

The swelling trend toward a greater awareness of the significance of developing wholesome self-concepts toward reading achievement is certainly a satisfying one, and I trust that it may contribute much to reading improvement in the future.

## *CONCERNS FOR THE UNDERNOURISHED*

One of our worldwide concerns thrown into bold relief with this emerging epoch is a new solicitude for poverty people—poor people living in city slums, in developing countries, and in overpopulated or barren sections of our own and other nations. As one facet of this concern, hunger has been investigated, including the malnutrition of children. As a result, some facts have been revealed which are significant to us in the teaching of reading.

Numerous studies (*18*) show a relationship between nutrition and intelligence, and all would agree that intelligence and reading have a high correlation. Many studies (*2*) show that inadequate nourishment of the mother during pregnancy is a factor affecting the child's intelligence.

Scarr (*12*) sums up the results of these studies when she says, "From the day a poor child is conceived by his poorly nourished mother, he is probably unequal. His growth is likely to be slower; he is more likely to be assaulted by infections and prenatal complications, and he is all too likely to be born in a premature state, which exposes him to enormous risks of brain damage."

As for young children after birth, it seems protein is especially important to the development of their brains during early years. Because protein foods are expensive, the poor have lower protein diets than advisable for their optimal growth. Several recent studies (*2*) made in Mexico, Guatemala, and the United States show that there is a correlation between low protein intake and intellectual development and general dullness in the learning capacity of young children.

No doubt, if all of the children in the United States and their mothers had all of the food that they need, including an adequate supply of protein and other dietary essentials, our problem cases in teaching reading would be decreased tremendously. The national provision to supply lunches free or at a reduced cost was a good step forward. The advice which is being given to mothers in the rapidly increasing nursery schools is helpful. In addition, anything that citizens can do to get their clubs, churches, cities, or states to improve nutrition for those who need it will be effort well placed, and at the same time these efforts will indirectly improve reading instruction.

In the future it is quite possible that nutrition will be rigidly controlled in order to produce intelligent human beings and human beings who are physically fit insofar as nutrition may contribute to these goals.

### *POSSIBILITIES IN THE USE OF DRUGS TO INCREASE READING ABILITY*

Experiments in the use of drugs to increase reading ability with remedial cases were used by Smith and Carrigan (*14*) and by Staiger (*15*) in 1959 and 1960 and were found to be ineffective in improving reading skills. Recently, experiments have been conducted with animals in the use of drugs to increase learning and memory. These studies appear to be promising and may have some significance for us in reading.

Nicholas Plotinkoff, of Abbott Laboratories in Chicago, has tested the drug Cylert on rats and discovered that it increased their learning capacity up to five times that of untreated rats and that this learning was permanent. James McGaugh, at the University of California at Irvine, has experimented in giving memory-enhancing drugs to rats. He found that a treated rat remembered getting out of a maze better than an untreated rat. Several other studies of this type have been conducted.

Other investigators have attempted to transfer learning by injecting fluid or material from the brains of trained animals into the brains of untrained ones. The results are successful with simple multicellular animals and mice, but scientists are not yet clear about the effect of transfers on higher forms of life.

However, the possibilities of using drugs to increase intelligence, learning ability, and memory seem to have moved from the realm of the possible to the probable in the not too distant future. It is even predicted that the brain can be electronically linked to computers to increase the application of human intellect to problem solving and to lead more or less directly to the improvement of human analytical ability.

In the light of fast moving developments, drugs and electronic means do seem to have promise of offering valuable help to normal learners as well as to slow learners and the mentally retarded. In the future these drugs might be of assistance to certain students in each of these classifications who are having difficulty in learning to read.

Krech (*7*) half-jokingly says: "Both the biochemist and the teacher of the future will combine their skills and insights for the educational and intellectual development of the child. Tommy needs a bit more of an immediate memory stimulator; Jack could do with a chemical attention-span stretcher; Rachel needs an antichlorine-esterase to slow down her mental processes; Joan, some puromycin—she remembers too many details and gets lost."

As for the challenge of the new drugs I will again quote from Krech: "To be sure, all our data thus far have come from the brains of rodents. But is anyone so certain that the chemistry of the brain of a rat (which, after all, is a fairly complex mammal) is so different from that of the brain of a human being, that he dare neglect this challenge—or even gamble—when the stakes are so high?"

The very latest development in drugs which might be useful in the teaching of reading has to do with those that influence behavior.

At an NEA convention Williams (*13*) made a plea for the use of such drugs under carefully observed safeguards and was strongly defended by NEA's Department of School Nurses. She said about two percent of the children who were unable to achieve acceptably in reading, spelling, and mathematics and who had normal or above normal intelligence could be characterized as hyperactive—having a very short attention span, being excessively distractible, and having no impulse control. She stated that literature is filled with documented case studies showing that such pupils carefully identified by psychological and medical evaluation have been significantly helped by amphetamines and Ritalin.

Some schools are now experimenting with behavior modification drugs. As many as ten percent of the children in one midwestern city are taking such drugs. The whole matter, however, is controversial. The research that has been conducted at present is sparse, lacking in controls, and quite unsettled.

As for the use of drugs with deficient readers, such treatment may be useful in some instances, for we all know that many remedial reading cases are also behavior cases. Their behavior, however, may be due sometimes to lack of interest in the material, absence of stimulating atmosphere, or failure of the teacher to adjust to the pupils' particular levels rather than to innate psychological factors. Careful diagnosis involving a physician, a psychologist, and often a psychiatrist as well as the reading specialist, definitely is needed before a decision is made in regard to the use of drugs.

The future holds great promise, however, for manipulating human behavior and also modifying personality. In the not too distant future techniques are likely to be developed to control perception, alertness, fatigue, tension, relaxation, shyness, and aggressiveness, as well as to increase intelligence and learning capacity. The use of such techniques in needed areas should be valuable to certain individuals in reading and in life, itself.

## *TECHNOLOGICAL TRENDS RELATED TO READING*

In the long trek of our quest for reading improvement, by far the most revolutionary innovation is the use of electronic technology with its future possibilities.

Nonelectronic automated machines for use in reading instruction entered the scene in the twenties with the introduction of the metronoscope, tachistoscope, and accelerator; then followed all of their descendants in a great variety of forms and nomenclature.

Eventually there was some experimentation in teaching reading with TV, but enthusiasm for using TV as a medium for reading instruction died down somewhat until *Sesame Street* had its spectacular run in the fall of 1969 with excellent results in teaching some of the fundamentals of reading to preschool children. Joan Cooney and associates of *Children's Television Workshop* are now preparing a program for seven- and eight-year-olds. These projects, no doubt, will stimulate many more programs to teach reading with the use of TV, both in and out of schools.

At this time the market is providing many automated reading and language arts laboratories for classrooms and a multitude of audiovisual devices and games which a child can use by himself in obtaining practice on many aspects of reading.

The larger technological developments, however, which are emerging into the reading field are the talking typewriter, the teaching machine, and the computer. The talking typewriter is being used experimentally in some nursery schools and with some remedial reading students. Reports from nursery schools using the typewriter indicate that children learn to recognize the letters and their sounds and in some cases can type out short stories dictated to them. Teachers report substantial gains in remedial classes, also.

Most of the present electronic teaching machines look like a television screen in an open-faced box with accompanying equipment consisting of an audiovisual system conveyed by the screen and a speaker. Some have earphones and a typewriter. Materials used in the machines vary. Some companies prepare their own materials, some use commercial materials, and some use a combination. The students use the materials and make their responses according to audio or visual instructions given by the machine.

The computer, the wizard of all technological devices, is the most favored of the automated inventions for instruction and diagnosis in reading. In East Palo Alto it is being used to teach reading to a group of first graders. There are 16 terminals from the one computer which serve each of 16 children. Each child works at the end of his particular terminal. While all children work simultaneously, each one may be working on different material and progressing at his own rate.

The work at the Stanford Laboratory, as reported by Atkinson (*1*) and Suppes (*16*), indicates that computer-assisted instruction in reading resulted in significant differences over experimental controls in all subskills except comprehension, where no significant differences were obtained.

The foregoing report had to do with the use of the computer in teaching reading. Many people think that the most useful function of the computer in reading may be in diagnosis. Geddes and Kooi (*5*) report an experiment conducted in two schools in Los Angeles using an instructional management system in which a computer played a large role as a diagnostic instrument. Children were given tests that resemble in format the usual workbook type of practice exercise. These were given once or twice a week, with directions prepared on audio tape and presented through headsets to a group of children at a listening center in the classroom. Each test item was carefully keyed to a teaching objective to permit the generation of a diagnostic printout for the teacher. The test items were printed on machine-readable forms. When the children had filled out their test sheets, the sheets were collected and the test data were inserted into a computer by means of an optical scanner. These data were analyzed by a series of programs that associated student response data with instructional objectives, designated appropriate prescriptive information, recorded individual and group performances, and generated a printout that was placed in the teacher's school mailbox the next morning.

The printout described who was having what kind of learning difficulty, suggested alternative activities, and referred the teacher to supplementary instructional materials that were stored in a file in her classroom. If the teacher wanted additional diagnostic information or information about available materials, she could use the teletype terminal in the school to make additional queries of the computer.

This whole system was set up in terms of computer possibilities of helping the particular teacher with her own group of pupils in her day-by-day classroom instruction.

These two examples illustrate some of the present possibilities of the use of computers in reading instruction and in diagnosis. The computer is also proving to be valuable in processing and retrieving data in the areas of reading research and information.

As for the future of the computer, generally speaking, its possibilities are great. It can make the whole world of information, computation, and audiovisual materials available; it can place before teachers and students entire libraries of printed and nonprinted materials for use at any time. Insofar as reading, specifically, is concerned the computer will probably become increasingly useful in all of the areas in which it is operating at present.

There is, however, one great improvement yet to be made. So far computer instruction in reading has consisted pretty much in drill on mechanics and checking literal comprehension. In the future our great emphasis should be on interpretation and critical and creative reading. The computer is said to have great potentialities in the higher intellectual processes, but its student-subject-matter-interface methods are limited to a few visual and auditory techniques such as light pen, slides, films, typewriter, and compiled speech. Considerable work remains to be done in the area of speech generation, that is, conversation. When such work is done, we can expect more depth reading in computer instruction. However, I don't think a computer can ever fully anticipate children's answers in critical and creative reading. In my opinion, we will always need perceptive teachers to encourage, guide, and stimulate the use of the higher intellectual processes in reading through group discussion and interaction with human beings.

### *THE NEED FOR DEVELOPING ADAPTABILITY TO CHANGE*

The speed with which change is taking place means that the child who is in school today and who will be spending most of his life in the twenty-first century will be living in a world far different from our present world. The facts that we are teaching him now will be of no or, at best, little use to him in the future. What we can do for him, the big contribution that we can make to the child of the future, is to teach him adaptability—ability to use his thinking powers in sensing the many possibilities of a situation: problems involved, tentative solutions, evaluations, choices to be made. In other words we should be teaching children to *think* in ways that will enable them to adapt themselves to the ever accelerating changes bound to come all through their lives.

Toffler (*17*) traces progress statistically through the years in transportation, agriculture, economic growth, population, consumption of energy, machines, publication of books, and many other aspects of civilization. In all cases he reveals slow, gradual increases since primitive days with a dramatic leap in the past generation and *startling* change in the past ten years. We have been living in an industrial civilization during the past generation. We are merging into a technological or superindustrial civilization in which the children of today will be living. This superindustrial civilization has every promise of being characterized by even greater acceleration in change than that which has taken place during the past ten years.

What does this situation have to do with reading?

In our industrial society the schools were modeled in terms of industry. Quoting Toffler (*17*):

> . . . the whole idea of assembling masses of students (raw material) to be processed by teachers (workers) in a centrally located school (factory) was a stroke of industrial genius. . . . Children marched from place to place and sat in assigned stations. Bells rang to announce changes in time.
>
> Young people passing through this educational machine emerged into an adult society whose structure of jobs, roles, and institutions resembled that of the school itself.

We still have many schools of this type, and the young people passing through them won't have jobs that mirror the introduction to society that these schools are giving them.

I will mention a couple of reflections of this kind of school as still seen here and there in reading instruction and which surely are not contributing to the development of adaptability. For example, we still have some schools in which all children are supposed to cover a reader or some other form of basal material at a certain grade level each semester or year in the first six years in the grades regardless of individual differences in intelligence, socioeconomic background, interest, and emotional factors. (This statement is not to be construed as a criticism of basal materials but rather of the requirements made of individual children.)

Another mass production process which is still altogether too prevalent is that in which the teacher follows students' reading of text daily with memory information questions. In visiting classrooms Guszak (*6*) found that literal questions were most frequently asked by teachers on reading across grade levels. Floyd (*4*) found that only five percent of ten teachers' questions on reading demanded a thought answer. Pate and Bremer (*10*) found only ten percent of the teachers believed that questions should deal with generalizations and inferences. Mass production of factual answers seems to be the output still desired by many teachers at present.

We must somehow get all teachers of reading to realize that a tremendous responsibility rests with us to teach children to interpret what they read, to think critically and creatively.

Leaving the matter of asking questions on reading content, it is good to note that there are some very hopeful indications of beginning trends towards adaptability in the reading area. For one thing we are tending to move more and more from mass progression toward individualized progression in reading. In the early sixties we heard much about individualized instruction in reading, but the use of this plan was spotty and more often than not confined to one or two grades rather than extended to the reorganization of a whole school.

At present we are hearing about extensive plans of individualization which include reading along with other subjects and involve a cluster of grades or a whole school. IPI, Plan Project, and Individually Guided Instruction developed in Wisconsin, each involves individualization in several grades and each is being used in a large number of schools. These may be harbingers of other similar developments to come which, together with the help of more electronic devices, will provide adaptations to individual progression in the future beyond anything known in the past.

Then there is a quantity of promising research which is being conducted concerning the teaching of reading to the disadvantaged.

Another trend in reading which has possibilities for learning adaptability [illegible]ormally organized classroom in which children learn through using several multimedia materials—different ones doing different things with tape recorders, filmstrips, projectors, TV, and automated games as well as with books and other software materials.

I have mentioned only a few of the signs of the times which indicate that there are already in existence the beginnings of trends toward teaching reading in ways that will educate the child in adaptability—the quality he will need most in living in the unforeseen future.

There are some who are predicting possibilities far beyond these. Toffler (*17*), for example, suggests that for the superindustrial future we have a "contingency curriculum" aimed at handling problems that do not exist now and which, in fact, may never materialize. He says we need to cope with potentially calamitous, though perhaps unlikely, contingencies: such as back contamination of the earth from the planets and stars or the need to communicate with extraterrestrial life. Even though such things as these may never happen, the students will have had an experience in adaptability.

Toffler also says, "Even now we should be training cadres of young people for life in submarine communities. Part of the next generation may well find itself living under the oceans." He thinks we should be doing this work not only with graduate students but with children drawn from the elementary schools and even the nursery schools.

Studies such as these keyed to future developments and problems would call for a tremendous amount of reading in many different areas and a kind of reading that most surely could contribute more to student adaptability than asking fact questions on a story in a reading class.

If students are to adapt to our present changing society and to our increasingly accelerated future, they must know how to adjust their thinking to different situations, how to evaluate changing conditions, and how to solve problems. And what better medium can serve our needs as teachers in developing these abilities than the content of reading—the content of reading which is as rich as all the resources in the world.

We must use this content in teaching reading in ways that will encourage children to speculate, ponder, search, solve, and create to the very depths of their minds in attempts to find answers—for that is what they will have to do to survive the accelerating thrust of the twenty-first century.

In the face of unprecedented change teachers will often find it necessary to make wise and discriminating decisions related to reading, will need to judge values carefully, will need to light candles, and will need to blaze trails in order to prepare children for reading competency in the unpredictable years ahead.

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# A TOTAL PROGRAM OF READING FOR CHILDREN

*Helen Huus*
*University of Missouri at Kansas City*

Our contemporary society is a reading society. On every hand are signs—billboards, shingles outside shops, labels on items in store windows, street names, destinations on buses, and television screens carrying information of airplane arrivals and departures. Anyone traveling in a country where the language is foreign to him is struck by the way he takes the functional sign reading at home for granted.

A minimum of reading is necessary for almost any job, as those who are illiterate find to their dismay. A pathetic story from a recent newspaper contained this paragraph:

> Mrs. ———— said that since her hands became infected she has suffered blood poisoning that has affected her eyes as well as hands. She has received only $113 in workmen's compensation in the last year, she said, although she has been unable to work. For her, work is hard to find any time because she does not read.

Today's pupils must learn to read if they are to develop their talents as individuals and make their contributions to society rather than become dependent upon society for their livelihoods. A total program of reading attempts to accomplish this.

Reading is viewed as an active mental process, rather than a passive physical one. While the printed words on a page are seen by the eyes, the meaning of these words is accomplished by the mind. The ability to gain meaning from print is influenced by a person's innate mental ability; experiences he has had with the ideas and vocabulary involved; his command of language; his age, interests, and motives; his emotions, biases, prejudices, and preconceptions; and the forces in his environment that support or retard his learning. A program of reading must recognize these influences and at the same time make provision for helping each child reach his potential.

The total program of reading described in this paper refers to everything the school does to promote the growth of pupils *in* and *through* reading, that is, to improve the reading skill and the use of reading whether the actual reading is done in school or out.

The total program is composed of five prongs: 1) learning to read, 2) using reading in other school subjects, 3) reading outside of school, 4) reading for enjoyment, and 5) upgrading one's own reading.

### *LEARNING TO READ*

The regular developmental reading program of the school is designed to teach pupils how to read. Originally this aspect was considered to have been completed in the lower grades, and few attempts were made to help pupils read at higher levels of the educational ladder. In the past, many students were retained in the elementary school until they obtained the grade-level competency required or until they reached the legal age limit for leaving school. As a result, later elementary grades sometimes contained pupils who were fifteen or sixteen years of age, waiting until their birthdays would allow them to quit. Later, as pupils were promoted on age and attendance, the sophomore year in high school became their chief "dropout" year. Today, schools are attempting to increase their holding power, and developmental reading is provided for pupils in some junior high and high schools and in several colleges as well.

Developmental reading focuses on upgrading the individual's basic reading skills: *word recognition*, so that pupils can reduce the printed words to oral or mental pronunciation units; *comprehension*, so that pupils will understand what they read, not only repeat what the material literally states but be able to understand ideas that are unstated or implied, to evaluate those ideas, to incorporate them into their background, and to use them when the occasion arises; and *study skills*, so that pupils can utilize their recognition and comprehension skills to complete their assignments in school, to locate additional information and use reference materials, and to organize and synthesize material they have read so that they will remember it.

A sound developmental program makes provision for each individual's needs. While the statement is easy to make, putting it into practice is another matter; for individuals include children described as "gifted," "disadvantaged," "slow learning," "retarded," "bilingual," "physically handicapped," or "emotionally disturbed." Reading instruction must be adapted to the various limitations stemming from the peculiarities of each need if all pupils are to learn to read as well as they can.

Much attention recently has focused on the disadvantaged and the bilingual, with somewhat less attention on the gifted. The needs of these special groups in basic skills are comparable to those of average children, yet because of the nature of the groups, their problems are highlighted and accentuated. A program designed for each child would necessitate adaptations, just as many schools have already done for the physically handicapped by building ramps for wheel chairs, getting books with large print for the partially sighted, and equipping rooms with mirrors for use in teaching the deaf child. One point of view holds that children who are different belong in regular classrooms, both for their own sakes and for the sake of the other children; another view promotes segregation as the better solution.

Perhaps no developmental program is so good that the need for remedial classes or support from a special reading teacher will be completely eliminated. The danger lies in that classroom teachers may rely too heavily on the help of special teachers and thus fail to teach pupils within the regular classroom as much as possible. Fortunately, many special reading teachers are working with pupils in first and second grades so as to nip in the bud any potential problems before they become too real. Certainly this practice is commendable, for not only does it help the child maintain his good self-image but it ought to reduce gradually the assistance needed by pupils as they progress through school.

A sound developmental reading program based upon certain principles of education must make provision for sequential teaching, where each day's work builds on what has been taught previously, where each year's work follows logically that which was taught before. Many teachers work and plan together so that a sequential program is provided. Problems arise when each teacher operates independently of others or when pupils move from school to school within a system or to another system, resulting in gaps in the pupil's learning. Gaps also occur when a pupil misses school for whatever the reason, when he fails to grasp one day's lesson and not enough review is given, or when he is inattentive and thus might as well be absent physically.

In addition to sequence, a system or some organization is needed, whether from a basal reader program, a skills textbook, or from the teacher's head. Whatever the source, a systematic presentation is made of basic concepts in word recognition, comprehension, and study skills. The third principle maintains that understanding each idea in the sequence or system is essential if power as a reader is to become a reality. Flexibility, readiness, pacing, and repetition are related principles, for few pupils learn from one exposure; and a variety of approaches and exercises may be necessary if learning is to occur, even when the pupil is ready for the next step.

A developmental reading program based on these principles indicates that planning is the key—planning based on what is known about individual needs and competencies in relation to the goals sought. Only in this way can the teaching be truly adapted to individual needs so that each learns to read to the best of his ability.

### *USING READING IN SCHOOL SUBJECTS*

The second prong in a total reading program is using reading in the various content subjects. The old cliché, "every teacher a teacher of reading," is still true today; for once a pupil has learned to read, he must utilize his reading skills in other school subjects such as mathematics, social studies, science, literature, art, music, and health—actually any subject where he is expected to read a text and understand what it contains.

Textbooks are difficult reading not only because of their tight packing of facts and the overall coverage they give but also because many topics are quite remote from the experiences of the pupils. The treatment of many topics is much too brief, being composed largely of summary statements which can be interpreted only by someone who already knows the details necessary to understand them. Many statements contain words and phrases that denote concepts unfamiliar to the students, yet are not sufficiently explained in the text. Figures of speech, unfamiliar punctuation marks, difficult sentence structures, and complicated charts, maps, or diagrams, all add to reading difficulties in school subjects.

Mathematics requires precise reading of directions; the ability to analyze a problem into logical operational steps; and the understanding of various symbols, types of graphs and tables, and units of measure. Social studies demands an ability to locate information and to read maps, charts, and diagrams. Science requires drawing conclusions from data; interpreting tables, statistical information, and graphs; following specific directions exactly in performing experiments; and understanding a highly symbolic language. Literature necessitates following the plot; interpreting characters, theme, setting, and purpose; and appreciating the style and beauty of the language and the literary devices used to obtain these.

Vocabulary related to social studies can best be learned during the social studies class, but pupils draw upon the basic skills of recognition and meaning learned in reading class as new words are analyzed and added to their working vocabulary. Likewise, science vocabulary is best learned in the science lesson; mathematics vocabulary, in that class; and literature, in that class. Pupils have the advantage of practicing their recognition and meaning skills in a context that makes sense, with the help of a teacher who is responsible for the teaching of that subject.

Students with superior study skills usually succeed well academically, though learning *how* to study has often not been given enough attention in elementary and secondary schools. A good example is outlining, for it is one of the most useful skills for studying and for taking notes. Another skill is locating information. It is disillusioning to watch some unskilled junior high school groups in the library attempting to gather information for individual reports—worse if it is a lower grade. Some pupils mill about, casually looking here and there, trying first this, then that, as if hoping to have help descend from on high. The skilled student goes about his business methodically and purposefully.

Robinson conducted a study with 12 fourth graders, all above average in intelligence and reading ability. The purpose of the study was to determine the skills needed to solve problems in social studies. Pupils were asked to think aloud as they worked, and their comments were recorded on tape. The tapes were analyzed to infer the skills the pupils used as they worked with encyclopedias, dictionaries, textbooks, and trade books. The results showed that 58 percent had difficulty locating the main ideas when these were not stated; 75 percent did not use pictorial material; 58 percent did not use the table of contents; and 83 percent did not use the index. Some pupils were satisfied with a partial solution to the problem, a practice which was interpreted to mean they did not know how to search further for additional information (*1*). While the study was very limited, teachers who would replicate this in their own classrooms would no doubt locate similar weaknesses in their pupils.

Help in reading content subjects and in the study skills necessary for academic success forms an important part of the total reading program and demands the assistance of every teacher if pupils are to succeed.

## *READING OUTSIDE OF SCHOOL*

The third prong in a reading program is the transfer students make to reading in their out-of-school activities. Students use reading outside of school for many purposes: Boy Scouts and Camp Fire Girls study for merit badges and honor beads; pet owners learn how to feed and care for their animals; girls find recipes to try; and boys follow directions for their chemistry experiments. Those who enjoy reading find time to read for fun. A few may use reading to escape from unwanted chores, for some children have long ago learned that reading is one pastime their parents are reluctant to interrupt.

Children have a real need for independent means of obtaining information and reading serves this purpose. Children ought to be introduced early to the public library and other sources that provide them with reading materials. While many of them have busy after-school schedules, they usually can find time to read if they utilize their free time wisely. Apparently some children still use a flashlight under the bedclothes and read on into the night! We can be glad they have the motivation, the skills, and the material, but we should try to save their eyesight by making a pact about lights-out time.

The independent reading children do on their own may lead them into long-lasting hobbies, as it did one boy who started his own newspaper in grade four, after reading about one in a book of hobbies he had been given, and continued the paper until he finished high school. A sixth grader who was an avid reader became an expert on Napoleon and could chronicle all his achievements in great detail to the discomfort of his teacher. Some pupils read only about horses and dogs until they exhaust the supply of these books, while still others read only of engines and ships.

The total reading program of a school anticipates and encourages the outside reading interests of its pupils. Teachers take pupils to the library and often help them choose their books for home reading; teachers recommend books in connection with topics studied in school; and teachers assign outside reading as an extension of school lessons or for special reports. Teachers also find time and occasion for pupils to share their reading and stimulate their peers to follow suit. Some teachers may promote independent reading in order to help the student solve some personal problems by reading of others who have met and solved a similar difficulty. Certainly the outside reading done when a pupil is in elementary school forms the foundation for his later becoming a lifetime reader.

As pupils read on topics of interest, the books may lead to new interests; and the chain continues, one book leading to another or one book by an author leading to other books by the same author. Some children are faithful to their favorite authors until they have read all the books they can get while others show the same loyalty to a series, such as the easy Childhood of Famous

American Series of biography or the Landmark and World Landmark books of history.

Getting pupils interested in books is not so difficult if they have the skills to read well and if the books are readily available. Libraries in schools ought to be open at all times during the school day to pupils who wish to obtain or return books, even when the librarian has a class to teach. Public libraries should schedule their hours so that children who must be driven there can come when parents are free to take them.

Reading will enrich children's lives and give them a background they can obtain in no other way, not even through television, for the pace can be as slow or as fast as the reader desires; he can return again and reread as often as he wishes; in fact, one child checked out the same book six weeks running until her parents bought her the book for herself. The child can stop to look up a word or idea to clarify a point; he can read aloud and listen to the sound of the words; or he can paint mental pictures from the descriptive passages. The important point is that he uses reading in his personal, out-of-school activities.

### *READING FOR ENJOYMENT*

While reading done both in and out of school ought to be enjoyable, reading that is for pure fun really needs no other excuse. This type forms the fourth prong of a reading program. Stories of fantasy, folk and fairy tales, humor and mystery seem to serve little practical purpose; yet they provide the reader with an opportunity to develop his sense of humor, to feel the excitement and suspense of a fast-moving plot, and to live vicariously in another time and place, albeit imaginative. These experiences contribute to the personality and development of those who read and to this extent do serve a practical aim.

Imaginative literature often provides the extension and release from the present and takes the reader into an improbable but perhaps not impossible world, such as science fiction does, or tales like *A Wrinkle in Time* by Madeline L'Engle, or *The Hobbitt* by J. R. R. Tolkien, or *Elidor* and *The Owl Service* by Alan Garner. It is only through stretching the imagination that many of our modern wonders have begun, and books that present possibilities start imaginations soaring. Think of the ideas about flight—from flying carpets to Icarus and Daedalus with their feather wings held on by wax to Leonardo da Vinci and his plans for flight—then compare with the helicopters or 747s of today! Who would have thought such heavy loads could ever become airborne? Yet someone did, and eventually it became possible.

Reading for fun is a legitimate aim of teaching reading and an integral part of developing permanent readers. Lest some fearful teachers consider this a waste of time, just think of the range and varied topics just one class can produce.

### *UPGRADING ONE'S OWN READING*

One of the greatest indictments of our schools has been the tragic boast by some graduates who claim they have not read a book since they left school. Even a report from today's teachers of what they are currently reading does not offer too much hope. Some individuals who leave school read very well indeed, but they fail to maintain their skills and interest because of vocational pressures, personal and community commitments, household chores, lack of motivation, fatigue at the end of the day, or difficulty in finding books on topics of interest.

Today, books on a myriad of topics at various levels of difficulty are printed; their availability is another matter but, as library service continues to expand, books ought to become more available to all.

The fifth prong, upgrading a reader's fare, seems easier than starting an individual reading. Once a person finds joy in reading, guiding him to read books of higher quality can begin with his expressed interests. Once the reader finds truly well-written books, he soon discards the others; the trick is to get these well-written books into the orbit of the reader.

In addition, reading requires discipline—the discipline of taking the time to choose a book and read it; the discipline of concentrating on the reading and excluding extraneous thoughts and outside noises in order to allow the author a chance to "speak his piece" without the reader's prejudging the work on the first few pages. Reading demands discipline, but some who wish an easy way will not fully subject themselves to the demands of the task. Thus, they miss the contributions that reading can make.

Setting up a reading program for oneself can take the form of selecting a personal "five-foot shelf" of classics, similar to the Harvard series of yesterday, or of going systematically through the lists of other classics for any age—elementary, high school, or adult. Libraries are generous in preparing lists that provide such information—lists for college bound students, lists for parents to read to preschoolers, or books children ought to have read by completion of elementary or secondary school. Best seller lists are given weekly in Sunday newspapers, though these must be viewed in the perspective of the total book production over time.

Children sometimes set for themselves the goal of reading all the prize books, or all the books by one author, or of reading on a restricted topic. Teachers encourage reading a variety of types and topics and help pupils fill in a "reading design" that serves as a record showing the reading has included poetry, folktales, science, history and biography, fanciful and imaginative tales, and poetry. Teachers and librarians encourage pupils to upgrade the quality of what they read by suggesting authors and books of proven worth.

Upgrading taste can only come about by having experience with the best, then comparing others against that criterion. Walter de la Mare pointed this out so clearly when he said, "Only the rarest kind of best is good enough for the very young." Children whose reading fare has included fine books may still read some of the mediocre series books but in doing so recognize them for what they are. Hopefully, the comparison will result in the choosing of high quality books and the sharpening of ability to evaluate.

The total reading program described here begins with teaching all pupils, regardless of their peculiarities, how to read as well as they are able, to use reading successfully in their school work, to read outside of school for their personal objectives, to read for enjoyment and pleasure, and to upgrade their reading tastes.

### *ROLE OF PARENTS*

Parents can help in at least four ways: 1) by assisting the child in building his language background and vocabulary by talking to him in sentences and expecting him to answer likewise, by pointing out the names of objects so that he builds his vocabulary of labels, and by taking him on small trips around the local area and calling his attention to objects and activities in his environment; 2) by providing the child with materials to look at and read—picture books, magazines, newspapers, library books—and then helping him start his own personal library, paperback books at first or hardback books later if he enjoys using the books repeatedly; 3) by helping the child find time to read and providing a suitable environment where he is relatively free from distractions so that he can read; and 4) by becoming a model of a parent who reads and finds it an enjoyable pursuit.

For parents who wish to upgrade their own skills, adult classes are offered in several communities; volunteers who begin by helping pupils often gain in reading achievement themselves; some parents gain additional incentive for study and grow along with their children as they read aloud to them, starting with the simple Mother Goose and picture books and then gradually as children grow older, reading books that keep pace with the children's growth. One grandfather came to an adult reading center in a library with just this motivation—he wanted to be able to read stories to his first grandchild.

Among the aids to help parents choose books wisely is a small paperback booklet called *Let's Read*—an annotated list prepared by the American Library Association—and a hardback book entitled *Children's Books in the Home* by May Hill Arbuthnot, which contains a sprightly discussion of various types of books along with annotations of varying lengths for children from preschool through adolescence.

Thus, parents viewing the total reading of their children ought to see that all prongs of the program are operative and that their home provides an environment that gives children the support and encouragement they need to develop into lifetime readers.

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# COMPONENTS OF A READING PROGRAM FOR THE INTERMEDIATE GRADES

*Constance M. McCullough*
*San Francisco State College*

A long time ago when I lived in New York City, I used to go on Sundays to hear the sermons of Harry Emerson Fosdick. He used to make three points each Sunday, presenting each in turn, with elaboration, and concluding with a resounding summary. Since it is obvious that all the components of an intermediate grade reading program cannot be treated in 35 minutes, I should like to deal with three problems which are so monstrous that you need not expect a resounding summary at the end.

The understanding of what reading is has increased in the past 30 years, but many of the materials we use to teach reading do not yet reflect that progress. One of my topics, then, concerns the *materials we use*. We realize now that background differences must be recognized in the child's reading program, unless we wish to help him fail for reasons beyond his control. Therefore, another topic is that of *background differences.* Today, both the teacher and the child should experience intensive study of the language in print and the ways in which the reader can achieve an understanding of the author's intention. My third topic, therefore, concerns *reading matter and reading process.*

## *READING MATERIALS*

The reading program is not in a syllabus. It is in the child. What does the intermediate grade child do during a school day to improve his mastery of the reading act? In a good many classrooms there is evidence of reading for pleasure; reading for information; and writing poetry, reports, essays, and stories in relation to social studies and science topics. Reading, writing, speaking, and listening are increasingly used in connection with a view of the world as a set of problems—which it undoubtedly is. This activity is all good application of what the child already can do as a reader. It also involves him meaningfully in the development of concepts and certain skills. An extra dividend is that the teacher can observe an individual child's needs and give help at the point of need or suggest activities to him and provide another child or teacher aide to assist him.

But there is also another development in modern classrooms that seems to involve the child in many independent activities for which he contracts with the teacher. Some classrooms are very cleverly arranged so that there are no chairs or tables except in those places in which there is work to be done. If the child makes the mistake of sitting down, there is the box or listening post or tape recorder or workbook and there are the instructional games.

These materials have good features and so has the arrangement. The exercises are short. The satisfactions of being right or wrong are prompt. The walks from one station in the room to another keep the blood circulating to the brain. The checking of the contract to show completion of the task is exhilarating. And if all of this effort has indeed improved the child's mastery of the reading tasks which life offers him and has improved this mastery efficiently, who should complain?

The producers of such materials need to evaluate them for possibilities of revision, and the teacher needs to evaluate them for the proportion of instructional time that they deserve. I believe they can be revised, and I believe that teachers should trust them less and examine them more. Most of them are more monotonous than they need to be. Many of them are narrow in the variety of reading experience they offer: types of skill, types of thought process, types of literature. Children's experiences with them differ only in the point at which the child starts in the material and the pace at which he progresses. Inductive learning, which is so successful, impressive, and interesting, is absent. Many of these materials are testing devices rather than teaching devices, depending upon trial and error, with no explanation of reason for error—the trusting teacher and the child thinking, "how many right, how many wrong?" That may have been good enough 30 years ago, but not now.

If the materials are good only as test milestones, perhaps ten minutes a week are what they are worth. If they are good as practice after something is learned, then we had better teach something ourselves for which they are practice. Again, their use would probably be limited because most of them seem to attempt a very narrow repertoire.

What room is there in such material for the development of the individual? There are very few things in the world which have only one right answer. Divergent thinking should be cultivated, even in programed material, and it can be done. If the child is to receive his reading instruction in isolation, then at least he should be made aware of the divergent views he might have encountered had he been in a group; and he should learn that his view is only one and perhaps even his is not the best.

A final comment: A child has less need of a record of numbers of rights and wrongs than he has of what he has learned about reading. Even the enjoyment of literature is not developed so much as it might be in some of our reading programs, because the child has no record of what he knows, with his own examples to illustrate the point. If a child knows he must keep a record, he will center his attention more on what he is learning and less on the distance he has traveled through a box, a book, a workbook, or a set of tapes or slides. A record is the reward: the evidence of the acquisition of new skills and a reference for their current and future application. Part of the record can be kept in a notebook, part displayed in the classroom and later kept in a file of his writings. Between the creative teacher and the creative child, possibilities are endless.

## *BACKGROUND DIFFERENCES*

So far, there seems to be little room for background differences in a box. But we have all seen graphs of the decline of progress in reading among minority-group children in the intermediate years. We have laid it at the door of the self-concept and in a variety of ways have tried to foster that. We have laid it at the door of relevance and have larded the bulletin board with news of minority accomplishments and have filled the classroom shelves and display tables with books about Blacks, American Indians, Asian-Americans, European-Americans, and Mexican-Americans as they applied to children in the class.

There is a third door at which we should lay the blame for the decline in the intermediate years, and that is the language door. Our language arts program must support children of different backgrounds in the task of meeting the language of the author. My belief is that compensatory education for background differences should start years before the intermediate years, but there are difficulties in materials typical of those latter years which can be smoothed by a relevant language program.

Take as an example the Chinese-American child. Many Chinese speaking children successfully overcome in the primary years their problems with English word structures and sounds and the problems of tense and the formation of plurals in basic sentences. But as simple sentences grow into longer sentences, the Chinese speaking child has to become accustomed to the role of prepositions in English sentences. The Chinese language has almost no prepositions. The child also has to cultivate in listening and in speaking an understanding of the role of connectives, for Chinese does not have connectives such as *where, since, when,* and *because*. The complex sentence and the compound sentence both require ear and speech training and confirmation in creative use in writing. A tape recorder with worksheets can ease such individual problems. Children need to learn not only the different meanings a given connective can have but the different connectives which are suitable in a given context.

"I can't go *because* I haven't a ticket."
*since*
*when*
"He *not only* came *but* brought me a present."
*both* *and*

Studies at the University of Alberta suggest that connectives are not equally difficult. Even with English speaking caucasians at fourth grade level, Barbara Stoodt of the University of Akron reports that connectives which contrast ideas or require alteration or modification of ideas previously stated tend to correlate with reading difficulty to a greater extent than connectives which add similar ideas or are part of a simple sentence.

"I don't know *how* you do it."
*the way* you do it."
(easier than) "I don't know the way *when* it's dark."

Even in the group of fourth graders who were racially homogeneous, children of lower socioeconomic status, children of lower intelligence, and boys had more difficulty with connectives.

Kellogg Hunt has expressed the belief that we could hasten the maturity of written expression by practice of ways of condensing ideas through modification and subordination, the expression of clauses as phrases, and of phrases as adjectives, adverbs, and stronger verbs, and more definitive nouns. If we studied the material children are choosing to read or must read, we could find plenty of language structures for oral and written mastery and help children learn the subskills of comprehension which need attention. We are beyond the time of thinking that the teaching of reading is only asking for answers to different kinds of questions. It is also asking for the ways in which those answers can be achieved.

What makes them inevitable if they are inevitable? What makes them diverse if they are diverse?

Kenneth Goodman has taught the lesson well in his studies of oral reading errors: that if we listen and ask ourselves why, we can often see what language difference has produced and take our teaching cues from there.

## *READING MATTER AND READING PROCESS*

The good reader brings expectation to the act of reading: expectation of ideas, of vocabulary, of style, of organization. The setting of the reading matter encourages expectations, whether it be a fire extinguisher on which there is a sentence of warning; a book whose title, cover, and illustrations set its tone; or a textbook in which a chapter has been assigned.

An example of this expectation is the different meanings common words can have. In Chomsky's *Aspects of the Theory of Syntax* (M.I.T. Press, Cambridge, Massachusetts, 1965) you will find on page 13 (which in itself should be a warning to you) the statement, "Repeated nesting contributes to unacceptability." In reading this the spinster over fifty and increasingly alarmed by the new developments in society, momentarily thinks she has grist for the next meeting of the bridge club. But no. Chomsky explains that "repeating nesting" and "unacceptability" have linguistic meanings beyond the delight of most bridge players. The spinster reads on, realizing that sin and syntax are not to be expected in the same book.

There are numerous ways to encourage expectation in reading. We can ask children to listen to a sentence and tell what question the sentence raises in their minds:

> "Somebody had broken the beautiful pitcher."

Most children ask, "Who broke it?" but some ask other questions such as, "Where was it?" "Couldn't it be replaced?" "Could it be glued together?" Then we can add the sentence that really followed and have the children tell which question it really answered:

> "George tried to act surprised like the rest of the family."

So the author had gone from what had happened to who had done it: effect-cause. What if he had gone on instead to how the broken pitcher looked (effect-elaboration of effect), or what happened next (first event-second event)? What might those sentences have been? Children thinking this way are learning to recognize the kind of idea and its relationship to the next idea, and this kind of thinking will lead them to see the author's plan and to build further expectations upon his plan. Some people have tried to divorce the act of reading from the act of thinking. What a mistake.

Now let us just suppose that you had taught your children to invent and to read sentences something like this:

> "Joey was the funniest of all the circus performers, outdoing every other clown in the number of laughs he got."

Notice what they have achieved in this sentence. There is the general classification of circus performers. A clown is one type, and Joey is one of the clowns. He is unique in being the funniest, and, as proof, is offered the claim that he provoked the most laughs. It is a noun-linking verb-adjective type sentence, with the addition of noun modifiers, unless you want to insist that "clown" is the noun understood after "funniest," in which case we have a noun-lv-noun type. What has the author done for reader expectation? He has essentially said that Joey gave the funniest performance and has followed that value judgment—stated as fact and as event—with proof or justification of the judgment. He told what he thought, and he told why he thought it.

The child interested in ecology may someday—perhaps years later—come upon John Muir's writings edited by Edwin Teale and entitled *The Wilderness World of John Muir* (Houghton Mifflin, Boston, 1954). In it he will find a chapter on the Douglas Squirrel which starts with a 49-word sentence of similar structure. Here it is:

> The Douglas Squirrel is by far the most interesting and influential of the California sciuridae, surpassing every other species in force of character, numbers, and extent of range, and in the amount of influence he brings to bear upon the health and distribution of the vast forests he inhabits.

Will that child, with the background you have given him, be more ready to see the stamp of opinion and proof, the levels of classification, the branching of ideas as though in an outline in the listing of the three characteristics of the squirrel and the two respects in which his influence affects the forests? Will he know that the squirrel brings to bear and that he doesn't bring anything to a bear? Will he know that the extent of range has nothing to do with home on the range or the range in the kitchen at home? Will he expect that the author will proceed to sell his enthusiasm about this squirrel to his reader, this captive potential squirrel-lover, and will show what he means by the squirrel's force of character, his numbers as compared with those of other squirrels, his range, and his effects on the health and distribution of the forests? Will he have caught the facts packed into this sentence—that this is a California squirrel and that, by inference, there are vast forests in California? Will he be able to guess that the squirrel will not live in California if the forests are stripped or burned off?

Ruth Strang said very wisely in her last monograph, *Learning to Read—Insights for Educators* (Ontario Institute for Studies in Education, Toronto, 1970, 13), "What the individual gets out of his mind depends upon the way in which ideas were put into it. By organizing and relating these ideas while reading, he will be better able to remember and communicate them."

In 1959 when I spoke at the University of Chicago on "Characteristics of Effective Readers in the Elementary School," describing the goals for the individual child's reading development, W.S. Gray said to me afterwards, "I would have added one thing." When I asked what it was, he answered, "That the reader understand what the process of reading is." Although we do not yet know all that the process of reading is, or all that it implies for the instructional program and the kinds of activity which will motivate the child to the best use of his time, we are moving in that direction. Teachers who inform themselves of new insights into the reading act, who listen to their children and learn from them, who evaluate available materials, who invent what is not commercially available, who are careful to build people while they build readers, who remember that the language arts work for one another—these are the teachers who will make a difference. The teaching of reading in theory has advanced in the past 30 years. It is up to us to make that progress a reality.

# ARE SECONDARY DEVELOPMENTAL READING PROGRAMS FEASIBLE?

*A. Sterl Artley*
*University of Missouri at Columbia*

"Are secondary developmental programs feasible?" is the question to which this paper addresses itself, and well it might when we look at the disparity between pronouncements about secondary developmental programs and actual practice—but more of that later.

## *THE GOAL OF DEVELOPMENTAL READING*

First, a statement is needed as to what a developmental reading program purports to accomplish. A developmental reading program has as its purpose the systematic and sequential development of reading competencies and interests on the part of all students toward increasingly higher levels of maturity, using content of increasing difficulty and complexity. In contradistinction to remedial and corrective programs which are organized to improve the competencies of the handicapped readers, hopefully few in number, the developmental program is for all learners who are progressing normally in reading in relation to their capacities. The developmental program may be organized in various ways, from reading classes continued sequentially from the elementary grades through junior and senior high school to reading taught in close conjunction with the several content areas.

## *THE STATUS OF DEVELOPMENTAL READING*

In this discussion I shall review selected reports describing the status of developmental reading in secondary schools, look at various types of programs that have been reported, and finally indicate some of the problems that seem to be inherent in organizing these programs.

The idea of developmental reading on the secondary level is by no means recent. In fact, the first professional article I had published (*1*) was written in 1940 while I was a graduate student. In the article I posed a question that certainly was not original with me, even in 1940. "To be more specific," I asked, "shall we emphasize remedial reading for a few or (developmental) reading for all?" Now we merely rephrase the question and ask, "Is such a program feasible in the first place?"

Within the past three or four years several statewide studies have been reported that give us some answers to the question I posed 30 years ago. Farr, Laffey, and Brown (*8*) report on the status of secondary reading in Indiana; Bowren (*4*) in New Mexico; Graham (*11*) in California; Larson (*14*) in Minnesota; Gibson and Vander Meulen (*10*) in Illinois; and Martin (*15*) in the upper Midwest. Chronister and Ahrend (*6*) investigated the secondary reading programs in the schools of British Columbia, and Squire (*20*) reports the results of a national study of high school English programs which include data on the status of reading.

In spite of the writing and speaking that have been done over the years concerning the necessity and value of secondary developmental reading, in spite of conference time that has been given to it and the studies and reports that have been made attesting to its need, we are still a long way from having widespread implementation of the idea of continued, organized, developmental reading for all secondary students.

Though one is able to find secondary schools in which reading is being taught, most of the instruction is still remedial. Attesting to this fact is the statewide survey of reading programs in California. Graham (*11*) found that though reading was being taught in 78 percent of the schools surveyed, 82 percent of the programs were organized around special classes stressing remedial techniques. Sixty-three percent of the respondents claimed that they were trying to involve the total school staff but admitted that not very much actually was being done to achieve this goal.

In New Mexico Bowren found that in schools where reading services were reported, the programs were organized as isolated entities, purely remedial in scope rather than as a "cooperative component of the curriculum. There seemed to be little concept of reading as permeating the whole curriculum" (*4*). Moreover, Bowren found a surprising lack of concern on the part of secondary educators regarding the need for reading services to reach all secondary school pupils in all curricular areas.

Martin (*15*) reports the results of a secondary reading survey which was essentially a follow up of a study conducted by Simmons (*18*) involving five upper Midwest states. Though in the five years between the two studies the number of programs had increased and improved, Martin contends that there is a long way to go before one can assume a "theoretically sound" reading program that makes provisions for all students including the handicapped readers. Chronister and Ahrend (*6*) found that of 216 secondary schools in British Columbia only 33 included a developmental reading program. In these schools responsibility for the program was chiefly in the hands of English teachers. This condition being true, no assumption could be made that students were receiving instruction in reading and study skills involved in the other content fields, especially since the writers found that only a few of the English teachers had formal instruction in reading.

Squire (*20*) paints a grim picture of the secondary reading situation from findings derived from the National Study of High School English Programs completed under the auspices of the National Council of Teachers of English. Naturally Squire was concerned with reading as taught by English teachers in English classes where presumably the largest number of students was being met. But here, where we might assume that reading was being taught, Squire found that in grade ten only 3 to 4 percent of the instructional time was devoted to reading, declining to 2 percent in grade twelve. Though English teachers seemed agreed that the goal of secondary reading instruction was to promote more active and critical reading, Squire reports that little was done to achieve it. He states that when the teachers were asked to comment on the importance of reading instruction, they either denied responsibility or claimed they taught reading all the time; but Squire notes that what is always done seldom gets done and reading instruction goes by default.

Moreover, caution must be observed in one's interpretation of a developmental reading program since it seems to be different things to different people. Smith (*19*) found this to be true in his study of the status and character of reading programs in a sample of seventh and eighth grade schools in Missouri. Smith found reading programs of some type to be present in 114 of the schools studied; but when he applied certain criteria of comprehensiveness, the number was reduced from 114 to 30. Applying further criteria of quality to these 30 schools the number was reduced further to 7. When discussing reading programs, makeup and character must be clearly defined; otherwise, what exists may be little more than a program in name only.

That college students sense the need for reading instruction on the secondary level seems evident in a study conducted by Artley and Burton (*3*) on the reading ability of entering freshmen in the

College of Education at the University of Missouri. As part of this study students were asked whether they could recall any type of reading instruction being given in high school. A total of 129 out of 194 students who responded said "no." Since the investigators did not ask the students to indicate type, the "yes" response might have indicated an organized course on the seventh grade level, a unit on reading in a language arts class, or vocabulary lessons in a history class. But the significant response was in answer to this question: "If you did not have any type of reading instruction in high school, do you feel now that you might have profited from it had it been provided?" Of the 129 who said they had no high school instruction, 121 indicated that they felt it would have been of value to them. The need for a continued developmental program is present. Ample evidence is also present to indicate that the need is not being met.

## *DEVELOPMENTAL PROGRAMS—WHAT ARE THEY LIKE?*

In Early's survey (7), a bibliography of 84 references is appended to her descriptive account and analysis of various kinds of secondary reading programs and approaches to instruction. Approximately 50 of her references deal with developmental programs, and on analysis almost that number of different approaches are described. This attests to Strang's comment that, "The best thing that can be said of high school and college programs today is that they are evolving. In a sense they are experimental. Many different kinds of programs are being tried out" (*21*). Consequently, at this point it is rather difficult to see distinct patterns of developmental programs that have evolved. Trends, though, may be in these directions:

1. Units dealing with aspects of reading and study taught as part of the language arts or English program.
2. Short term intensive programs (one semester, four weeks, summer).
3. Voluntary programs for college bound, or any student who wishes to continue work in reading.
4. Reading taught in conjunction with English instruction. (This may mean many different things. Unfortunately it frequently means little.)
5. Reading and study taught in conjunction with one or several of the content areas.

6. Separate classes distinctly designated as reading and included as part of the regular secondary curriculum.
7. Free or sustained reading (*9, 16*).

Since detailed descriptions of reading programs may be found in a number of sources in the literature (*2, 7, 13, 17*), as well as in such journals as the *English Journal, Journal of Reading,* and *Reading Teacher,* little purpose would be served here in adding to these descriptions.

However, I do want to emphasize one of the foregoing trends—reading taught in conjunction with one or several of the content areas—as the one that possibly has the greatest potential for functional value. Early (*7*) says it well in these words:

> In a well-run school system, the teaching of reading would proceed smoothly and efficiently from the primary grades where the beginning skills would be mastered by all, to the intermediate grades, where basic study skills would be applied to reading in the content areas, through the junior and senior high schools, where reading skills, habits, and attitudes would be extended and refined as students encounter increasingly complex materials. All instruction in reading would take place in the regularly scheduled subjects of the curriculum. There would be no need for extra reading classes, whether these are conceived as "developmental" for students at every level of achievement, or as "remedial" or "corrective," since potential reading disabilities would have been diagnosed as early as primary grades and preventive measures applied.

Early admits that this is an ideal concept, but a functional one, since on the secondary level progress in reading would be assessed in a manner that would go beyond the use of a standardized reading test to include a ". . . study of the amount and quality of voluntary reading and the effects of achievement in all school subjects."

Insofar as the secondary level is concerned, we would agree thoroughly with Early's contention. Obviously one cannot read in a vacuum. One reads or studies literature, science, history, mathematics, home economics, and industrial arts. Though there are certain competencies common to all these areas, there are also abilities that to varying degrees differentiate one area from another. Moreover, the vocabularies differ, and the kinds of content that one would use for enrichment reading would differ. All this means that the teaching of reading cannot be divorced from the teaching of a given body of content. In fact, when the chips are down, one would be forced to admit that the teaching of social studies, for example, is essentially that of teaching students to comprehend, react to, and apply to behavior pertinent social concepts. *The teaching of history is teaching students to read history.* And who should assume that responsibility other than the teacher of history, geography, or social problems?

But as logical as the idea may be, the teacher feels that the body of content that he has to "cover" is so extensive that no time remains to teach reading or even to deal with it in any way. Herber (*12*), as well as others, contends that the teaching of reading of a given body of content cannot be divorced from teaching the content itself. However, he points out there is a distinct difference between teaching reading in a reading class where the curriculum is a set of competencies and teaching reading in a content area where the curriculum is a set of ideas or concepts. In the latter situation the teacher examines the content (assignment) with which his students must deal to determine the structure within which the ideas are imbedded. His responsibility then is to help his students develop the skill or understanding necessary to reconstruct those ideas. Herber's text, *Teaching Reading in Content Areas,* shows teachers how to combine in an effective manner the teaching of reading and the teaching of content or, better said, the teaching of reading through the teaching of content, whether the content be literature, science, or mathematics.

## *PROBLEMS OF ORGANIZING DEVELOPMENTAL READING PROGRAMS*

To return to our basic question, "Are secondary developmental reading programs feasible?" the answer lies in the problems faced by those who have had experience in organizing and conducting such programs. The programs will or will not be feasible to the extent to which those problems can be resolved. And there are problems.

The first, mentioned over and over again as a reason for the absence of developmental programs or for their questionable value, is the absence of qualified personnel—supervisors as well as teachers. Martin points this fact out in his study of the reading programs in the upper midwestern areas. Bowren in New Mexico indicates that 76 percent of the teachers would not qualify for certification under newly adopted standards. Twenty-two percent of the teachers reported not having had a single course in reading methodology. Squire, in discussing reading as taught in English classes, comments on the poor quality of instruction as well as its absence. His findings are particularly disturbing since he found that in 50 percent of the schools studied a "reading specialist" was employed and usually that person was a member of the English department. "Apparently," Squire (*20*) writes, "such staffing does not guarantee success." Laffey and Brown found in their study of Indiana secondary schools that the major obstacle to the development of programs is lack of qualified personnel. In the programs studied 69 percent of the teachers had no undergraduate training, and 58 percent had no graduate work. And so it goes!

Removing the roadblock of unqualified personnel seems to be a problem of the first order, and its resolution appears obviously to be in the hands of teacher education institutions themselves. A survey of the number of teacher education institutions offering a required course in the teaching of secondary reading, at least for English majors, would be an interesting and informative one. I would venture a guess that the number would be relatively small. Apparently no one, even in the department of instruction itself, feels sufficiently impelled to insist on the obvious.

One has reason to doubt that, even with an ample supply of trained personnel, much progress can be made in reading programs if the administrative leadership, chiefly the building principals, are uninformed or apathetic about the need for or the quality of such programs. This fact was referred to by Bowren (*4*) in his study of programs in New Mexico. He was distressed by the astounding lack of concern on the part of those who should be responsible regarding the need to have reading instruction reach all students. He concluded that ". . . until principals are willing to give priority to the development of a quality reading program which will minister to every pupil . . . very little change in present-day conditions will come about." We have reason to agree.

Another series of deterrents to secondary reading programs shows up in the study of Farr, Laffey, and Brown. They report that along with the lack of qualified personnel are lack of facilities, cost of added personnel, cost of materials, and lack of time in the schedule. Underlying these so-called obstacles is the assumption that secondary reading is an extra something to be added to an already overloaded schedule, something that will demand extra dollars from an already depleted budget, something that will require extra rooms when we already use the all-purpose room for all purposes.

If reading is considered a part of the ongoing program in each of the content areas, as Herber and others point out, most of these deterrents will no longer be valid. The teaching of literature or science, for example, is the teaching of reading of literature or science, not something extra to be added. Catterson (*5*) emphasizes this same point. Though she is speaking of the development of study skills, the same comment can be made concerning reading in general. She writes, "The authors of these papers have made it obvious that they think of study skills (reading) not as something to teach but as a way to teach—a way of teaching which advances not only the student's knowledge of subject matter but his ability to learn other subject matter independently and at will." In other words Catterson is not talking about reading programs as something to be added but something that should be a part of good content area teaching. Early (*7*) reiterates the same idea, for she sees in the ideal secondary developmental program no need for reading teachers as such, since reading would be infused into all school subjects and handled by all teachers as a *mode of learning*. What is required here is a change in point of view toward secondary reading rather than the addition of something to what already exists.

Finally, a disturbing element observed in the descriptions of secondary reading programs, and certainly it must be an element in their lack of effectiveness, is the absence of any coordinated pattern or system of instruction—an organized curriculum. We commented on the variety and diversity of programs described by Early in her report. We referred to Strang's statement that secondary programs were evolving, that they were experimental. Certainly this trend is desirable, provided we can begin to see the emergence of a consensus as to what a developmental program should do, the dimensions that comprise it, and the organizational structure that will most effectively achieve these objectives. As it is, we seem to be riding off in all directions in secondary reading—even in the remedial component.

Evidence of my contention is both stated and implied from the studies to which we have referred. In 1963, Simmons (*18*) reported from his study of five north central states that the programs were narrow in scope and rigidly administered. Five years later, Martin (*15*), studying the same schools to see what progress had been made in the interval, found that there was still an absence of programs proposed as theoretically sound by Simmons. Bowren (*4*) reported in 1970 that in schools having reading services the programs were organized as isolated entities, purely remedial in scope rather than being a "cooperative component of the curriculum." In fact there seemed to be little evidence of the idea that reading should permeate the whole curriculum.

Coupled with the confusion over the direction that a developmental program should take in order to achieve maximum maturity on the part of all students is the absence of agreement as to the type of instructional materials to be employed to carry out the program objectives. This result hardly could be otherwise; for if one is not clear on where he is going, he likely will be uncertain about the best vehicle to use to get there. Graham reports that pacers, tachistoscopes, films, reading kits, and a variety of teacher-made materials constitute the predominate type of instructional materials being used. Bowren found that many of the programs centered around the use of mechanical hardware which he considers questionable. Squire found more than 25 different drill and workbooks in the schools he surveyed but, as he indicated, not being used in any coordinated system. When one couples a program lacking direction with a hodgepodge of unrelated instructional materials and a teacher lacking training, we have just about what we find—a discouraging situation.

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# BASIC ASSUMPTIONS AND PROBLEMS IN SECONDARY READING

*Sister Mary Edward Dolan*
*Clarke College*

The profile of secondary developmental reading programs that evolves from studying available research makes one feel like closing the books and sighing a profound "Amen." But that would be sidestepping one of the greatest challenges facing the leadership in reading today. Bell (*2*) states, "The future is not an overarching leap into the distance; it begins in the present." He further points out:

> Time . . . is a three-fold present: the present as we experience it, the past as a present memory, and the future as a present expectation. By that criterion, the world of the year 2000 has already arrived, for in the decisions we make now, in the way we design our environment and thus sketch the line of constraints, the future is committed.

So in spite of our apparent failure to implement developmental reading programs in our secondary schools across the nation, I have great hope for the future. This optimism is based on three current happenings:

1. Research is being conducted to study components that could be combined to formulate developmental reading systems at the secondary level. Furthermore, research results are being communicated to the profession.
2. Partnerships are being formed between colleges of education and local school systems. Such combinations should insure more realistic preservice education for our beginning teachers and update both content and practice for our veteran teachers.
3. Individualized performance-based education is not just being talked about but is being implemented in our schools.

Each of these movements seems to be a response to three basic problems identified in the research reviewed by Artley: the absence of any coordinated system of reading instruction, uninformed and/or uninterested school personnel, and reading programs lacking direction.

## *RESEARCH CONCERNING THE COMPONENTS OF SECONDARY SCHOOL READING SYSTEMS*

Herber and his associates at Syracuse are studying ways in which reading instruction can become part of the regular secondary school curriculum in each content area. In this three-year study, Herber (*6*) uses several basic assumptions as the generative source for his research:

1. The place for the functional teaching of reading in secondary schools is in the content classroom, with the instruction provided by classroom teachers who use their ordinary curriculum materials as the means for that instruction.
2. Reading goes beyond the decoding of symbols to the generation of ideas, the synthesis of ideas, and the application of ideas stimulated by those symbols.
3. The content determines the process by which the material is read. The teacher's task is to acquaint students not only with the content of the material but with the processes by which the content can be acquired.
4. If there is to be a simultaneous teaching of content and process, lessons must be well structured, never haphazard. Herber maintains that teachers, in general, provide for the preparation and evaluation phases of lessons, but the guidance segment of the lesson is frequently the subject of exhortation and rarely of application. He believes that guiding students in the application of process so they understand both it and the content is the heart of the matter.
5. Students are the reason for the existence of the school. If the content and the process are to be taught simultaneously, then the regularly required material of the curriculum must be adjusted to meet the needs of the students, not vice versa.
6. The role of the teacher must change. Herber believes that a teacher can shift the burden of learning to his students and help them carry it rather than holding to himself the knowledge students should possess and dispensing it daily in piecemeal fashion. When a teacher views himself as a guide to students' learning experiences, his students are not placed in the position of trying to guess what is in his mind as he asks questions.
7. Each component of the reading system is subjected to many

> short term mini-studies each of which is conducted after the effects of the previous one have been determined and appropriate adjustments have been made for the next study. At the end of this series of iterative studies, the components should be well defined and could be combined into a whole system for secondary reading.

These assumptions were used to generate hypotheses concerning a secondary reading instructional system. Herber (*6*) reports the findings of these mini-studies conducted during the first year of his research in his book, *Research in Reading in the Content Areas—First Year Report*. The studies are concerned with three of the five components he identifies as basic to the reading instructional system: grouping (providing for individual differences, student interaction, and multiple recitation); lesson structure (preparation, guidance, evaluation); and levels of comprehension (literal, interpretive, and applied). The two other components, organizational patterns (cause-effect, comparison-contrast, simple listing, time order) and skills (inference, deduction), were considered indirectly. The second year's research is built on the findings of the first year.

Herber (*7*) has also produced a handbook for teachers of basic school subjects who wish to teach students how to read their content materials and increase their understanding of the content at the same time. It is an attempt to show teachers how to develop content and process simultaneously.

Herber's continuing study is an outstanding example of the kind of research which projects hope for future secondary reading programs. Unrelated, fragmented, isolated bits of research have been laid aside and have been replaced by the coordinated study of basic components interrelated in a reading instructional system. Furthermore, periodic reports of the research are made available to the profession. Practical aspects needed for implementing significant components into current classroom curriculums have also been communicated to teachers and administrators in a handbook published for the common market. An approach such as this should certainly lead to the development of sound, purposeful, coordinated systems of reading instruction at the secondary level.

## *COALITIONS BETWEEN COLLEGES OF EDUCATION AND LOCAL SCHOOL SYSTEMS*

The second main block to achieving adequate secondary reading programs that emanated from reviewing the research is uninformed and/or uninterested school personnel. An antidote to this problem could well be the forming of partnerships between colleges of education and local school systems to see how they can help and support one another in their educational endeavors.

Recently, three Dubuque colleges invited all the superintendents, curriculum personnel, and principals of the neighboring school systems to meet with the faculties of the education departments to discuss the following questions:

1. In what direction is your school system going with regard to curriculum, organizational patterns, teaching strategies, and demonstration school?
2. What kind of help, if any, do you think the local colleges can give to the local school systems?
3. What can the local schools and the local colleges do together for mutual benefit?

The interaction of small brainstorming groups at this meeting should certainly arouse any uncommitted and inert administrators and stimulate them to renew their roles as instructional leaders pledged to be catalysts of change and innovators in curriculum improvement. College instructors should also be motivated to descend from their "germ-free laboratories" and become involved with the day-to-day problems of the local schools. As a result of continuing dialogue between these two groups, it is hoped that the teacher education programs will become more realistic by providing early and continuous experiences for preservice students—beginning with work in the schools as teacher aides, tutors, microteachers, assistant teachers, and student teachers and culminating as interns. It is also hoped that some of the college instructors will become clinical professors and spend part of their time not only with students but also with teachers in the schools.

Early (*4*) and Niles (*13*) suggest approaches to inservice teacher education to alleviate the shortage of properly trained secondary reading personnel. Their listings include providing teachers opportunities to attend lectures and demonstrations by reading consultants, to examine and evaluate materials, and to participate in "make-it, take-it" workshops and study groups.

McCracken (*12*) believes that it takes a thousand pounds of traditional summer work or ten thousand pounds of traditional undergraduate course work to accomplish what one pound of on-the-job experience can do. Couldn't this inservice role be assumed by clinical professors who have one foot in basic theory in their colleges and the other foot in children's learning problems in the local classroom?

Burdin (*3*) summarizes nine different approaches to teacher education. Three of the basic components of each model include professional preservice experiences, inservice or on-the-job training in the local schools, and clinical professors responsible for both the preservice and inservice experiences.

This new thrust toward cooperative effort between colleges and local schools should prepare better teachers of reading at any level and leaven those already in the field.

## *INDIVIDUALIZED PERFORMANCE-BASED EDUCATION*

The third basic problem identified in the review of the literature is the lack of direction in reading programs. Mager (*11*) says that ". . . an instructor will function in a fog of his own making until he knows just what he wants his students to be able to do at the end of instruction." Mager also distinguishes between course descriptions (what a course is about) and course objectives (what students should be able to do after completing a course). Teachers have been too willing to lavish time on the general aims and purposes of secondary reading programs without indicating what it is that the student should be able to do as a result of his learning experiences.

Because this condition prevails, the public is clamoring for accountability in the schools. Parents are asking to be informed about what is expected of their children and how their children's needs are being met.

One response to this situation is the use of performance or behavioral objectives. Performance objectives are specific guidelines to the learner that usually contain at least three key components (*5,14,9,8*): 1) a clear, precise description of the behavior the learner is expected to exemplify; 2) the conditions under which the learner is to do what is asked; and 3) a definition of a minimally acceptable level of proficiency.

Let's look at the following performance objectives (*8*). The first is concerned with the literal comprehension of the main idea of a paragraph. "Given a short paragraph, the student will compose a title appropriate to its content."

The second deals with the literal comprehension of the details in a paragraph: "Given a reading selection and a list of incomplete sentences based upon it, the student will complete each sentence by filling in the appropriate details from the selection."

Compare these performance objectives with the traditional objective "to locate the main idea of a paragraph" or "to grasp the details of a paragraph." In the latter the behavior expected of the learner is not precisely stated, the conditions under which the learner is to perform the task are not specified, and a minimal level of proficiency is not stated.

Lewis (*10*) states that "It is generally agreed that teachers do not state educational objectives in behavioral terms. They usually rely on words or terms which are non-observable and which contain a wide range of interpretations. . . . The fault of this lies primarily with our teacher training institutions which do not offer courses in the preparation of instructional or educational objectives."

If the course offerings in college catalogs and the number of books being published are indicators of action, then this deficit is surely being removed now. One of the most frequently encountered topics is "performance objectives."

This movement toward the precise delineation of the reading task, the specification of conditions under which it is to be performed, and the evaluation of its achievement seems to indicate that if reading personnel are properly trained and motivated, secondary developmental reading programs can no longer be directionless.

## *CONCLUSIONS*

Research indicates that serious problems have hampered the development and/or implementation of secondary developmental reading programs. There was little evidence of any coordinated system of instruction. Secondary school reading personnel were inadequately prepared, and administrators seemed uninterested. Students in secondary schools wanted help in reading, but the reading programs offered were often inadequate and directionless.

But what about *now*? Are the programs feasible *now*?

Yes—if research such as Herber's continues.

Yes—if the results of such research are communicated to the profession and brought to a practicable level in the education of secondary teachers.

Yes—if colleges of education and local school systems become partners in developing secondary reading programs and training secondary reading personnel through preservice and inservice education.

Yes—if the road map of learning is more carefully specified and evaluated in terms of the tasks to be performed.

Secondary developmental reading programs must become feasible *today!*

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# SOME TEACHING SKILLS AND TECHNIQUES

# WISCONSIN DESIGN FOR READING SKILL DEVELOPMENT

*Wayne Otto and Eunice Askov*
*Wisconsin Research and Development Center for Cognitive Learning*

Many reading teachers operate on the basis of a straightforward assumption: If essential subskills are mastered, then functional reading ability will be attained. While this assumption seems perfectly reasonable, the fact is that it has never had a systematic, large scale test. Reduced to fundamentals, development of the Wisconsin Design for Reading Skill Development and its subsequent field test amount to a test of the assumption. A product of the Wisconsin Research and Development Center for Cognitive Learning, the design comprises the components that appear to be essential to the implementation of a skill-centered approach to reading instruction.

The design, then, is a vehicle for implementing a skill-centered approach to reading instruction. In this paper a framework for development of the design, characteristics of the design, and empirical support for skill-centered instruction are considered.

## *A FRAMEWORK FOR ORGANIZING SKILL DEVELOPMENT*

To be effective in facilitating children's reading skill development, teachers must first focus on a number of things. Teachers must decide 1) exactly what they want children to learn, 2) who already knows it, 3) how they can teach it to those who do not, and 4) how to decide when it has been learned (*8*). That is, they must have an organized approach to teaching.

The framework for organizing instruction that has guided the development of the design includes the following elements: identification of essential content, statement of objectives, assessment, identification of appropriate teaching/learning activities, and evaluation.

1. *Identification of essential skills.* The most basic task is to identify content considered to be essential to success in a given area. Otherwise, there can be no straightforward approach to

instruction. Yet, the fact is that up to the present time efforts to specify essential content have been rare and not very definitive except in the basic skill areas, where essential content amounts mainly to essential skills. In the reading area it is possible to identify "essential" skills with consensual, historical, and limited but implicit empirical support.

2. *Statement of objectives.* Adequately stated objectives specify the criterion behaviors related to each essential skill and specify the operational mastery levels that become the *absolute* or *criterion* referents for judging the adequacy of performance.

3. *Assessment.* Objectives that serve to define essential skills in terms of observable behaviors make possible the assessment of individual skill development status through the use of formal, paper-and-pencil tests or informal observation of relevant behaviors. Assessment permits the teacher to determine which skills have been mastered.

In a skill area like reading, objectives that are related to essential skills ought to specify mastery levels. Each pupil should be expected to attain mastery of each objective—e.g., 80 percent or better of test items related to the objective. A pupil's performance, then, is assessed with regard to an absolute or criterion referent —the objective—rather than a relative referent—the performance of his peers. Mastery learning is gaining solid support in all areas (*3, 4, 5, 10*). We feel it is imperative in the basic skill areas where foundations are laid for subsequent learning.

4. *Identification of appropriate teaching/learning activities.* Efficient reading instruction depends on objectives and assessment. The teacher who knows what constitutes adequate performance is in a position to determine the current skill development status of individuals. Once specific needs have been identified, the teacher is in a position to devise appropriate instruction; in other words, the teacher selects from the array of available instructional materials and activities those that appear to be most appropriate for a given pupil in a given situation at a given point in time.

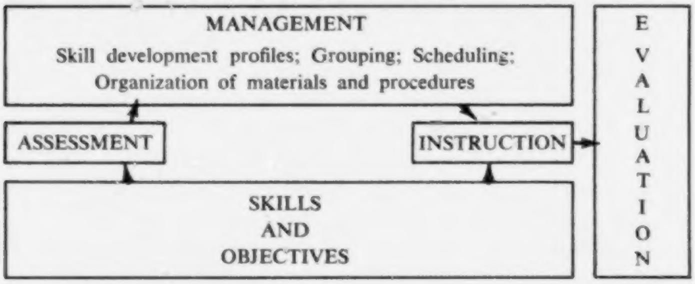
This is, in our opinion, the place at which the teacher must assume major responsibility. At the present time virtually no definitive knowledge has been generated regarding the systematic matching of pupils and instruction. Thus, the task of working out the details of instruction rests squarely with the teacher. Yet, while there will always be a number of ways to pursue a given objective, well-stated objectives will, at the very least, specify the goals of instruction.

5. *Evaluation.* The payoff from application of the present

framework ought to be functional reading ability, the ability to cope with the reading tasks encountered both in and out of school. If the desired end product is not forthcoming, then there is reason to examine each of the components to determine where the process has broken down.

The framework is summarized in the schema that follows. A management component is added in the schema because our experience has shown that means for helping teachers "get it all together" are required if the framework is to be workable. The management component is a vital aspect of the design.

Framework for Organizing Skill Development


MANAGEMENT
Skill development profiles; Grouping; Scheduling; Organization of materials and procedures
ASSESSMENT
INSTRUCTION
SKILLS AND OBJECTIVES
EVALUATION

## *CHARACTERISTICS OF THE WISCONSIN DESIGN*

The design includes the components that experience has shown to be necessary for successful implementation of the framework just described.

In developing the design, the skills included in a broad definition of reading were divided into six areas: *word attack, comprehension, study skills, self-directed reading, interpretive reading,* and *creative reading.* The skills included were originally drawn from the carefully prepared curriculum guide of a public school system. The list has subsequently been refined in view of feedback from teachers and reading specialists who have worked with the list in the field, extensive reviews of the related literature and instructional materials, the opinions of authoritative reviewers, and experience in pilot situations.

Within the six areas, the skills are clustered at levels that correspond generally to traditional grade levels. The skill areas and traditional grade level equivalents of the skill levels are shown in the schema that follows. The grade designations are given only for transition purposes as the design is adopted; the recommendation is that the grade designations be ignored as soon as a continuous progress approach to skill development becomes operational.

Skills by Area and by Traditional Grade Level

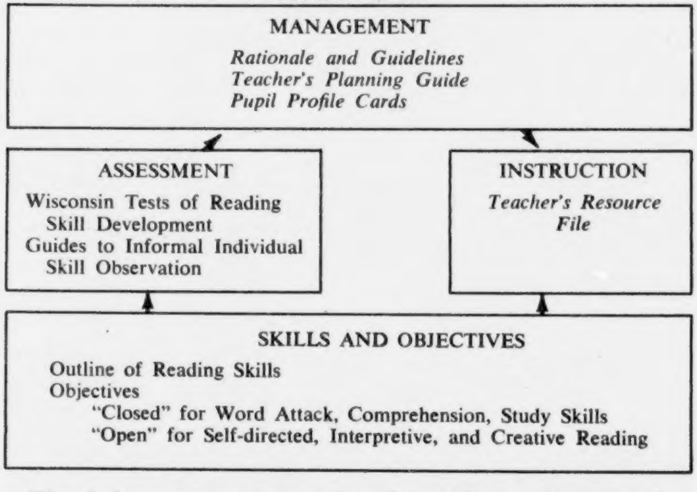
| Skill Area | Grade | | | | | | |
|---|---|---|---|---|---|---|---|
| | K | 1 | 2 | 3 | 4 | 5 | 6 |
| Word Attack | A | B | C | D | — | — | — |
| Comprehension | A | B | C | D | <—— | E | ——> |
| Study Skills | A | B | C | D | E | F | G |
| Self-directed Reading | A | B | C | D | <—— | E | ——> |
| Interpretive Reading | A | B | C | D | <—— | E | ——> |
| Creative Reading | A | B | C | D | <—— | E | ——> |

Word attack skills are not given beyond Level D because the essentials are introduced and taught to the average child by the end of the primary grades. Skills in the other areas, excluding the study skills area, are clustered at Level E for grades 4-6 because, traditionally, the middle grades have been the place for consolidating and refining reading skills. After an intensive review of the study skills area, however, the decision was to continue the sequential clustering of study skills for the middle grades.

In addition to the list of essential skills for each area, the design includes a specific objective stated in behavioral terms for each skill in the word attack, comprehension, and study skills areas and "open" objectives for the remaining areas; machine scorable criterion referenced tests and/or guides to informal assessment for each behavioral objective; pupil profile cards that permit the systematic grouping and regrouping of pupils according to skill development needs; and resource files of suggested published materials and teaching procedures keyed to specific skills for use in instruction. Thus, the design provides a skill development framework for an elementary school reading program, a means for monitoring individual progress in skill development, and a management system for both pupils and instructional materials. The procedures suggested are compatible with but not tied to any particular instructional setup (e.g., basal reader centered, classic individualized, or language experience). In addition, manuals are provided to assist with the implementation of the design. A *Rationale and Guidelines* manual is addressed to central office personnel, principals, and others who provide leadership in planning and providing for implementation. Underlying assumptions regarding the design and requisites of a total reading program are considered as well as specific guidelines for implementation. A *Teacher's Planning Guide* is limited to the specifics required for implementation in the classroom. Both manuals reflect several years of experience in schools which collaborated in developing the design. [See Otto and Askov (*11*) for a more detailed description of the design and its components.]

In the schema that follows, components are placed in the framework. The assessment components permit teachers to focus upon behaviors related to specific skills, thereby permitting teachers to design instruction in view of the skill-related performance of individual pupils.

Wisconsin Design for Reading
Skill Development
COMPONENTS


MANAGEMENT
*Rationale and Guidelines*
*Teacher's Planning Guide*
*Pupil Profile Cards*
ASSESSMENT
Wisconsin Tests of Reading Skill Development
Guides to Informal Individual Skill Observation
INSTRUCTION
*Teacher's Resource File*
SKILLS AND OBJECTIVES
Outline of Reading Skills
Objectives
"Closed" for Word Attack, Comprehension, Study Skills
"Open" for Self-directed, Interpretive, and Creative Reading

The design amounts to a means for testing an important hypothesis derived from the basic assumption that underlies its development: A skill development focus in reading will result in improved overall reading achievement. A large scale field test, involving 30 schools, is now underway with the word attack phase of the design, and the data gathered will permit a test of the hypothesis. There is, however, already available certain support for a skill-centered approach to reading instruction.

## *EMPIRICAL SUPPORT FOR THE SKILL DEVELOPMENT APPROACH*

Three kinds of support have been sought.

1. Because the approach taken in the design revolves around the assessment of specific skills, the reliability and validity of the skill-related criterion referenced tests that are a component of the design have been examined.

TABLE 1

WISCONSIN TESTS OF READING SKILL DEVELOPMENT
TEST RELIABILITY DATA
(From Fischbach, Harris and Quilling, 1970)

| Level & Subtests | Number of Respon-dents | Number of Items | Mean Score | Spread of Scores | Hoyt Reliability | Evaluation Test | Evaluation Items |
|---|---|---|---|---|---|---|---|
| Level A | 109 | | | | | | |
| Rhyming Words | | 15 | 10.29 | 1-15 | .84 | S[1] | S |
| Rhyming Phrases | | 15 | 11.45 | 3-14 | .73 (.79)[5] | S | R |
| Shapes | | 15 | 12.70 | 5-15 | .81 | S | S |
| Letters & Numbers | | 15 | 14.18 | 10-15 | .56 (.75) | R(S) | S |
| Words & Phrases | | 15 | 11.71 | 4-15 | .74 | S | S |
| Initial Consonants | | 15 | 7.97 | 1-15 | .84 | S | R |
| Level B | 105 | | | | | | |
| Sight Vocabulary | | 20 | 13.68 | 5-20 | .60 (.74) | R(S) | R |
| Beginning Consonant Sounds | | 20 | 16.45 | 7-20 | .76 | S | R |
| Ending Consonant Sounds | | 19 | 13.94 | 6-19 | .75 (.80) | S | R |
| Consonant Blends | | 20 | 14.99 | 4-20 | .86 | S | S |
| Short Vowels | | 13 | 8.05 | 1-13 | .81 | S | R |
| Consonant Digraphs | | 18 | 10.20 | 5-15 | .34 | R[3] | R |
| Compound Words | | 20 (17) | 13.66 | 5-20 | .80 (.82) | S | R-D[4] |
| Contractions | | 15 | 7.31 | 1-14 | .75 | S | R |
| Base Words & Endings | | 14 (11) | 7.57 | 1-14 | .80 (.80) | S | R-D |
| Plurals | | 20 (12) | 15.42 | 4-20 | .75 (.81) | S | R-D |
| Possessives | | 30 | 20.19 | 11-30 | .77 | S | R-D |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Level C | 113 | | | | | | |
| Sight Vocabulary | | 20 (15) | 16.04 | 7-20 | .72 (.77) | S | R-D |
| Consonants & their Variant Sounds | | 42 (30) | 27.43 | 9-41 | .79 (.84) | S | R-D |
| Consonant Blends | | 15 | 12.99 | 2-15 | .86 | S | S |
| Long Vowel Sounds | | 40 (30) | 31.89 | 10-40 | .92 (.91) | S | R-D |
| Vowel + r, a + 1, a + w | | 14 | 8.69 | 1-14 | .81 | S | S |
| Diphthongs | | 15 | 10.93 | 2-15 | .82 | S | S |
| Long & Short *oo* | | 15 | 10.13 | 4-15 | .70 | S | S |
| Consonant Digraphs | | 15 | 11.58 | 5-15 | .70 | S | S |
| Base Words | | 14 | 10.60 | 5-14 | .72 | S | R |
| Plurals | | 12 | 10.22 | 2-12 | .80 | S | S |
| Homonyms | | 15 | 11.12 | 4-15 | .61 | A[2] | R |
| Synonyms-Antonyms | | 14 | 8.15 | 2-13 | .60 | R | A |
| Multiple Meanings | | 12 | 9.18 | 3-12 | .66 | A | A |
| Level D | 101 | | | | | | |
| Sight Vocabulary | | 25 | 20.84 | 10-25 | .74 | S | R-D |
| 3-Letter Consonant Blends | | 18 | 14.38 | 2-18 | .85 | S | S |
| Silent Letters | | 14 (15) | 7.94 | 1-14 | .72 (.86) | S | R |
| Syllabication | | 15 | 10.31 | 3-15 | .70 | S | R |
| Accent | | 12 | 6.92 | 2-11 | .32 | R | R |
| Schwa | | 14 | 7.64 | 1-14 | .69 | A | R |
| Possessives | | 15 | 7.62 | 2-15 | .73 | S | R |

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[1] Reliability or β coefficient is satisfactory ($r_{11} \geqslant .70$).
[2] Reliability or β coefficient is minimally acceptable ($.60 \leqslant r_{11} > .70$).
[3] Reliability or β coefficient is unacceptable; revisions necessary ($r_{11} \leqslant .60$).
[4] Items of lower than average β coefficients were deleted.
[5] Reliability after revisions reported in parentheses.

Content validity is, of course, the foundation of validity evidence for criterion-referenced tests: in the area of word attack, skills were identified, behavioral objectives were written, and a separate test was constructed to measure the behaviors described in each objective. The resultant tests—the Wisconsin Tests of Reading Skill Development: Word Attack—are machine scorable to permit rapid handling and are generally limited to 15 items to permit rapid administration. In general the Hoyt reliability coefficients for the tests, based on tryouts with at least 100 children, range in the .70s or better (see Table 1). Thus, the feasibility of devising short, reliable skill assessment tests has been demonstrated, and the groundwork for a skill-centered approach is laid.

There is evidence, too, of low to moderate intercorrelations among the individual skill tests. This factor amounts to evidence for the validity of the choice of skills, for it suggests that each subtest is measuring an ability that is somewhat specific and, therefore, necessary or "essential." Low to moderate correlations among scores on individual skill tests and standardized reading achievement tests are evidence that the behaviors measured by the tests are related to overall reading skills. However, since these correlations are only moderate, it can be inferred that the Wisconsin Tests of Reading Skill Development are also measuring slightly different abilities from general reading achievement tests —i.e., specific skill acquisition (*7*).

Another type of investigation of the validity of the Wisconsin Tests of Reading Skill Development was reported by Fischbach (*6*). He tested the hypothesis that reading mastery scores (i.e., number of skills mastered at a given level) should be positively related in a simple manner to scores on independent measures of reading achievement. Using regression of reading achievement scores on mastery scores at six grade levels, Fischbach found the expected relationship at all except one grade level, where the relationship was somewhat more complex. In other words, as the number of reading skills mastered at a given level increased, grade-equivalent scores on widely used reading achievement tests also increased. Although these results did not "prove" the validity of the Wisconsin Tests of Reading Skill Development—for content validity had already been established for the word attack skill tests—they did permit a check for any gross deficiencies which were not found.

Another indication of the validity of criterion referenced testing is derived from a study of the relationship between the machine scorable group tests already discussed and informal, individual assessment exercises written for the same objectives (*2*). Both types of assessment devices were devised for reasons aptly stated by Trismen (*14*), ". . . curriculum evaluation studies should include both individual and group measures of various types. Presumably these various approaches would yield different information, and comparisons among the results should provide a better understanding of the complexities of the classroom situation." Although the correlations between the groups and individual tests were not high, the low but positive correlations were interpreted as an indication that the individual tests were serving a purpose not met by the more formal group tests. In other words, the two types of tests generally tap a common cluster of behaviors; but each apparently goes beyond the common elements, as common sense would suggest.

2. Evidence that implementation of the design has a salutary effect on reading achievement as measured by independent tests has been sought.

The ultimate test of the skill development hypothesis is whether there is a generally salutary effect on reading achievement as measured by independent tests. Here again the limited data that are available at the present time tend to be encouraging. The data summarized here were reported by Quilling (*13*), and the summary tables presented are adapted from her report.

Achievement data were gathered from two elementary schools in the spring of the year preceding implementation of the word attack phase of the design and again in the spring of a pilot year of implementation. Data gathered after implementation were compared to baseline data gathered immediately before implementation.

Results from the Doren Diagnostic Reading Test of Word Recognition Skills for School A are given in Table 2. The difference between mean total scores clearly favors the experimental group ($p < .01$) and the performance on all subtests was higher after implementation. Results from the Gates-MacGinitie Reading Tests are given in Table 3. All of the mean grade equivalents were improved after implementation.

The data from School B are more limited: due to timing of the local testing program complete data were available only for second graders; the Stanford scores for third graders were obtained in March rather than May. Doren scores are summarized in Table 4. Again, the 1970 scores are higher than those from the previous year, but the gains are not so great as for School A, nor do they reach a comparable level of significance ($p < .15$). [We should

### TABLE 2

MEAN PERFORMANCE OF SECOND GRADERS ON THE DOREN DIAGNOSTIC TEST IN MAY 1969 AND MAY 1970. SCHOOL A.
(from Quilling)

| | *School A* | | |
|---|---|---|---|
| | May 1969 | May 1970 | Difference |
| Total Score | 76.6 | 83.0 | 6.4** |
| Letter Recognition | 8.2 | 9.1 | 0.9 |
| Beginning Sounds | 8.4 | 8.7 | 0.3 |
| Word Recognition | 14.2 | 14.5 | 0.3 |
| Speech Consonants | 4.4 | 4.5 | 0.1 |
| Ending Sounds | 9.7 | 10.6 | 0.9 |
| Blending | 6.9 | 7.4 | 0.5 |
| Rhyming | 4.9 | 5.2 | 0.3 |
| Vowels | 16.2 | 18.5 | 2.3 |
| Homonyms | 3.8 | 4.2 | 0.4 |

** Significant at .01 level.

### TABLE 3

MEAN PERFORMANCE IN GRADE EQUIVALENTS OF PRIMARY PUPILS IN SCHOOL A ON GATES-MACGINITIE READING TESTS IN MAY 1969 AND MAY 1970. SCHOOL A.
(from Quilling)

| | Vocabulary | | Comprehension | |
|---|---|---|---|---|
| | May 1969 | May 1970 | May 1969 | May 1970 |
| First Grade | 1.8 | 2.2 | 1.9 | 2.1 |
| Second Grade | 2.8 | 3.2 | 2.8 | 3.1 |
| Third Grade | 3.6 | 3.8 | 3.7 | 3.8 |

### TABLE 4

MEAN PERFORMANCE OF SECOND GRADERS ON THE DOREN DIAGNOSTIC TEST IN MAY 1969 AND MAY 1970. SCHOOL B.
(from Quilling)

| | *School B* | | |
|---|---|---|---|
| | May 1969 | May 1970 | Difference |
| Total Score | 83.4 | 86.5 | 3.1 |
| Letter Recognition | 9.1 | 8.9 | 0.2 |
| Beginning Sounds | 8.8 | 8.8 | 0.0 |
| Word Recognition | 14.6 | 14.6 | 0.0 |
| Speech Consonants | 4.3 | 4.5 | 0.2 |
| Ending Sounds | 11.3 | 11.5 | 0.2 |
| Blending | 7.1 | 8.2 | 0.9 |
| Rhyming | 5.5 | 6.2 | 0.7 |
| Vowels | 18.7 | 20.3 | 1.6 |
| Homonyms | 3.9 | 4.0 | 0.1 |

note here the histogram plots reported by Quilling show less negative skew after a year's implementation. The suggestion is that low achieving students derived substantial benefit from the skill development program. Similar projections for the high achieving students may be precluded by the low ceiling of a diagnostic test. Furthermore, the generally higher scores in School B may have been depressed by the low ceiling of the test, thus preventing larger gains.] Raw scores from reading subtests of the Stanford Achievement Tests are summarized in Table 5. While the 1970 scores might be explained in terms of the early testing date and the fact that implementation had proceeded for only five months, it is gratifying to note the gain in word study skills, the main thrust of the word attack phase of the design.

TABLE 5

MEAN PERFORMANCE IN RAW SCORES OF THIRD GRADE PUPILS ON STANDARD ACHIEVEMENT READING SUBTESTS IN MARCH 1969 AND MARCH 1970. SCHOOL B.
(from Quilling)

| | March 1969 | March 1970 |
|---|---|---|
| Word Meaning | 22.5 | 22.2 |
| Paragraph Meaning | 35.7 | 34.2 |
| Word Study Skills | 39.6 | 40.9 |

Taken together, the pilot data are encouraging. The impact of the word attack program on independent measures of word attack skills is positive and unequivocal. The impact on more general test performance is not so straightforward, but the fact remains that the comprehension and study skill phases of the design are yet to be implemented.

3. Whether a school faculty can realistically set and pursue specific skill development goals was examined.

Data were gathered from one school in which goals were set in the fall and skills were assessed in the spring. In general, the goals set were attained (see Table 6). The suggestion is that teachers can realistically set and successfully pursue specific skill attainment goals; that is, teachers can cope with an approach that pays explicit attention to an array of specific skills.

To sum up, we feel that the logic of pursuing a skill oriented approach to reading instruction is very appealing. We have, after a great deal of developmental work, devised a system for implementing such an approach. To the present time we have evidence that essential skills have been identified—at least in the area of

TABLE 6

PERCENT OF WORD ATTACK SKILLS MASTERED AT GIVEN LEVELS: PROJECTIONS AND PERFORMANCE
(from Quilling and Graper, 1970)

| IQ Range | Skill Development Level | Years of School Completed 1 | 3 | 5 | 7 |
|---|---|---|---|---|---|
| 60-79 | A | 42/—* | 100/91* | 100/100 | 100/100 |
| | B | 0/— | 42/27 | 70/75 | 84/100 |
| | C | 0/— | 0/0 | 35/28 | 55/88 |
| | D | 0/— | 0/0 | 0/6 | 14/63 |
| 80-94 | A | 70/54 | 100/97 | 100/100 | 100/100 |
| | B | 7/2 | 52/54 | 91/93 | 100/100 |
| | C | 0/0 | 0/27 | 35/62 | 70/99 |
| | D | 0/0 | 0/4 | 14/26 | 56/81 |
| 95-109 | A | 84/64 | 100/100 | 100/100 | 100/100 |
| | B | 14/2 | 63/77 | 100/99 | 100/100 |
| | C | 0/0 | 21/53 | 80/93 | 100/100 |
| | D | 0/0 | 0/14 | 70/49 | 84/93 |
| 110-140 | A | 100/73 | 100/100 | 100/100 | 100/100 |
| | B | 21/5 | 77/81 | 100/100 | 100/100 |
| | C | 0/0 | 21/59 | 100/97 | 100/100 |
| | D | 0/0 | 7/16 | 100/69 | 100/96 |

* Projected Percent of Mastery/Actual Performance.
— Indicates no subjects in this category.

word attack—and that teachers can, in fact, cope with a focusing on multiple skills in terms of realistic goal setting and goal attainment. There is evidence, too, that when the word attack program is implemented, there is a measurable impact on related but independent test scores. A much more extensive field test with definitive data on the word attack phase dates from 1971, to be extended to study skills in 1971-1972 and to comprehension skills in 1972-1973.

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# TO WHAT EXTENT ARE SKILLS CENTERED DEVELOPMENTAL READING PROGRAMS NECESSARY?

*Albert J. Harris*
*The City University of New York*

The question of whether the classroom learning situation should be preplanned has once again become an area of lively controversy. But this is not the first time that the question has been raised. Several years ago, in a paper entitled "Progressive Education and Reading Instruction" (9), I traced the beginnings of present language experience and individualized methods back to pioneer progressive schools in the 1890s. During the twenties and thirties the Progressive Education Association actively campaigned for the deemphasis of textbooks and the promotion of a freer, more spontaneous kind of classroom. Its opponents asserted that progressive schools neglected basic skills and turned out graduates who couldn't spell, couldn't write grammatically, and couldn't do simple arithmetic.

At that time, also, the first substantial research on the question was carried out. In 1926 Gates reported on "A Modern Systematic *versus* an Opportunistic Method of Teaching: An Experimental Study" (6). His results favored the systematic method. It is difficult to find a good label that covers methods which are not skills centered; and, for want of a better term, Gates' "opportunistic" will be used in this paper. These methods are opportunistic in the sense that the teacher, guided by certain underlying principles, evolves the specifics of the reading period from what the children contribute, rather than from a lesson plan prepared in advance. The main varieties of opportunistic methods are the language experience approach and individualized developmental reading, and quite often these are combined.

Recently, conventional schools have been challenged from two diametrically opposite points of view. On the one hand, there is a movement to express the goals of education in terms of highly specific behavioral objectives. The sponsors of behaviorally stated objectives are thorough adherents of skills centered teaching. Their complaint is that skills have not been taught efficiently enough because the objectives have not been stated with such precision that teachers could easily determine exactly what kinds of practice the pupils need in order to attain them. On the other hand, a new group of progressives has attacked conventional schools as being dull, dreary, and stultifying; and they call for a free kind of school in which the teacher's role is that of a kindly guide who helps the children learn what they want to learn. The possibility of developing a school in which effective, sequential, diagnostic teaching of needed skills in ways that the average teacher can manage is combined with a good deal of interest centered, free choice activity does not seem to have occurred to the extreme proponents of either of these points of view.

## *CLARIFICATION OF TERMS*

The term "skills centered developmental reading program" requires some consideration. First of all, while conventional, eclectic basal readers fall within this category, so do phonic and linguistic readers, programed readers, and readers printed in a special alphabet. The term "program" implies that the material in question is intended to provide the main core of reading instruction. "Developmental" implies that the main use intended is first in teaching and not in corrective or remedial work. "Skills centered" implies that the attainment of comprehensive reading skills is the primary objective and that content has been selected and arranged to further that attainment. In past research, skills centered programs have usually been represented by eclectic basal readers, but conclusions based on such comparisons do not necessarily extend to other kinds of skills centered programs. It must be noted that most of the basal readers used in studies to be summarized are already out of date and have been supplanted either by revised editions or by new and different series.

"Opportunistic" reading programs tend to fall into two categories. One of these is now generally called the language experience or language arts approach. The central idea of this approach is sometimes described as follows: What the child thinks about, he can talk about; what he says, he can write or can be written for him; and what he writes, he can read. The heart of the approach is the experience chart, formulated into sentences by the children with the teacher's help, written down by teacher or pupils, and subsequently used as reading material. Skills are usually taught as the teacher, using the words already employed in the reading charts, perceives the need.

The second category may be called individualized developmental reading. After a short period of group or whole class instruction, each child reads ahead at his own pace, with periodic individual conferences with the teacher and supplemented by some skills instruction in temporary groups. The main materials are trade books. The watch words of "seeking, self-selection, and pacing" are accepted in most but not all individualized programs. Some individualized programs are really individualized progress through basal reader materials.

There are many kinds of combinations of skills centered and opportunistic procedures. Many teachers who rely on basal readers also have some language arts work and a substantial amount of individualized reading. Some programs that are called language arts or individualized programs also include daily intensive drill with a particular set of phonics materials. Indeed, it may turn out that combinations which include both sequential, skills centered activities and many features of the opportunistic programs are more effective than a relatively pure program of either type. In reading the research, it becomes evident that the label used by the researcher does not always accurately characterize the method used.

## *PREVIOUS REVIEWS AND CRITICAL ANALYSES*

An extensive literature has grown up concerned with both the language experience approach and with individualized developmental reading. Most of these contributions may be described as argumentation in favor of such a program, as descriptions of how to operate it, or as testimonials from teachers who have tried it and like it. Many older experimental studies employed faulty research design, did not maintain equivalent conditions aside from the experimental variable, worked with small groups for a short period of time, did nothing to counteract the Hawthorne Effect, did not apply appropriate tests for statistical significance of differences in results, or generalized their conclusions far beyond what their results justified (*24*).

Among the several reviews of the literature on individualized reading, most weight can probably be given to those by Sartain (*25*). In 1968 he summarized the results of a large number of studies as being inconclusive; individualized reading had done better than basal readers in some studies and less well in others. He also interpreted the research as showing that individualized reading requires highly competent teachers and that pupils of below average ability tend to be more successful in a basal reader program than in individualized reading.

In another paper, Sartain lists advantages and disadvantages of individualized reading (*23*). The following were listed as advantages: 1) a wide and varied selection of good children's literature; 2) instruction adjusted to individual interests, rates, and skills needs; 3) meaningful reading by the children during all of the reading lesson; 4) individual conferences with the teacher; and 5) children's developing more favorable attitudes toward reading and reading more books. The advantages were counterbalanced by these disadvantages: 1) the requirement of a large number of books; 2) the difficulty of some children in selecting books; 3) the teaching plan giving no opportunity for preparation or developing readiness; 4) vocabulary, concepts, and skills not systematically presented or repeated; 5) necessity of the teacher's being highly competent in identifying reading skills and managing time; 6) some children's requiring more definite structure and experience in group interaction; and 7) the danger that children will not read enough different types of books to broaden their literary interests.

Putnam (*22*) lists problems in individualized reading in two categories. Four weaknesses were considered to be inherent in the plan and difficult to improve: 1) the time lapse between a child's individual conferences with the teacher is too long; 2) the need for a specific skill is often passed before the skill is taught; 3) teachers often teach a skill to one child at a time when several may need the same skill and could be taught as a group; and 4) if one follows the principle of teaching when a need becomes apparent, it is almost impossible to develop skills sequentially. Common weaknesses listed as correctible are lack of teacher competence and insufficient groundwork and preparation before initiating a program.

In regard to the language experience approach, there has been far less experimental research than with individualized reading. Between Gates' study (*6*) of 1925 and the Cooperative Research Studies of 1964-1965 there is so little that it may safely be skipped. There was, of course, much writing and discussion about the approach, but practically no comparative research.

## *RECENT RESEARCH*

The rest of this paper will describe a number of research studies published since 1965, most of which are part of the U.S. Office of Education's Cooperative Program in First Grade Reading Research. There were 27 first grade studies which received federal support; the majority continued through the second grade, and a few followed the children through the third grade.

The plan called for sending all results to a coordinating center at the University of Minnesota where the results from various studies were combined. Two lengthy, statistic laden reports were prepared by the coordinating center (*2*, *4*), and two reasonably full reports were published in the *Reading Research Quarterly*. In the first report (*1*), one of the comparisons made was between language experience methods and basal readers, and another was between individualized reading and basal readers. However, two studies which utilized language experience methodology in comparison with basal readers were omitted from consideration because their populations were unrepresentative of the general population. In the second report (*5*), these two studies were not even listed.

The coordinating center reports do stress some general findings that are relevant to today's question: 1) differences among teachers within a method were generally much greater than average differences between methods, 2) all methods succeeded with most children and failed with some, and 3) there seemed to be intangible community differences which influenced the results despite all efforts to equate the experimental groups. For example, suppose that the children in community A and Community B make equal averages on reading readiness tests. If method X is used in one community and method Y in the other, one cannot tell to what extent any differences in results may be due to the methods or to community differences.

### *STUDIES WITH REPRESENTATIVE POPULATIONS*

The cooperative program included two projects involving individualized reading and four with language experience methodology. One of the studies of individualized reading was done at the University of Wisconsin. Macdonald and others (*17*) compared individualized progress through basal readers with conventional group instruction using the same materials. The project started with ten teachers for each method, but three of the teachers in the individualized method withdrew during the study. The classes were chosen from two Wisconsin counties. At the end of first grade there were no significant differences in achievement between the total groups. There also were no significant differences in pupil anxiety or in teacher knowledge about the achievement of individual pupils. Those high in readiness tended to do better in the grouped classes. The individualized group had a higher average interest in reading, and members were less likely to pick the best readers in sociometric choices.

Spencer (*28*, *29*) compared an individualized program with a basal reader program in rural communities in Vermont. Most of the schools had only one first grade, and some had combination first and second grade classes. The teachers in the individualized classes also gave daily systematic instruction in phonics in groups, using a published set of phonics materials along with individualized reading of trade books. The teachers had all been rated above average, and their preferences were respected in assigning methods. Spencer reported that the classes in both methods spent comparable amounts of time in reading and related activities but did not state how this fact was determined. The individualized teachers were given a three-week workshop and were visited weekly; the basal reader teachers were given two days of preparation and were visited less often. Spencer's results at the end of first and second grades showed higher means for the individualized method on most tests. However, it seems quite possible that factors other than the individualized procedure may have accounted for these results.

Neither of these studies was really typical of individualized instruction, the Wisconsin study because it involved individualized progress through skills oriented basal readers and the Vermont study because it combined individualized reading with skills centered phonics instruction.

Kendrick (*14, 15, 16*) compared a language experience approach with a conventional basal reader method with 27 San Diego teachers and about 650 children in each method. Both groups of teachers had used their method before and were given equal amounts of training. At the end of first grade, most comparisons failed to show significant differences. At the end of second grade there were 23 significant differences, 13 of which favored the basal reader approach and 10, the language experience approach. The language experience approach tended to show some advantages in measures of speech and writing while the basal reader approach showed some advantages in paragraph meaning and in interest in reading.

Hahn (*7,8*) compared three approaches: a language arts approach, basal readers, and i.t.a. The language arts teachers were given a set of language experience units, prepared by R. Van Allen, and a set of phonics materials for daily practice. The basal reader group did not have additional phonics. The i.t.a. method was based on the Downing Readers and the use of i.t.a. trade books. The classes were located in Michigan schools, and the author reported that "Attempts to match groups of students within a school district were not too successful . . . the three hundred or more young people in each treatment group were fairly closely matched in terms of reading readiness and intelligence." During the second grade the language experience group alternated month by month between two procedures. One was a combination of language experience and individualized reading. The other was systematic group instruction in directed reading, emphasizing reading-thinking skills. At the end of first grade no one method was consistently superior to the other two, and most differences were not significant. At the end of second grade the results showed slightly higher means for the language experience group than for the basal reader group. However, if the class instead of the individual pupil had been used as the statistical unit, it is probable that most of the differences would have been nonsignificant.

Stauffer (*30, 31, 32*) compared a language arts approach with a basal reader approach. In addition to the usual emphasis on oral and written expression and experience charts, the language arts group was given intensive word attack training from the beginning. Also, after children completed the equivalent of primer reading, they were given some group instruction in first readers. In the second grade there was a month by month alternation between a combination of language arts and individualized procedures and group instruction using basal readers and stressing reading-thinking skills, as in Hahn's project. Thus the language arts approach in this study was really a combination of skills centered and opportunistic procedures. The assignment of pupils to methods was rather unusual. Ten first grades in one Delaware county were assigned to the language arts method; they included 232 children, 71 of whom were Negro children in segregated classes. The 10 control classes, with 201 children, were located in two other communities in the same general area and included no Negro children. On most readiness tests the two groups were fairly equal, but the experimental group was significantly higher in recognition of phonemes, recognition of the alphabet, and ability to recognize some words at the beginning of instruction.

Stauffer's project continued through the third grade. The experimental group showed some advantage for average and above average pupils at the end of the first grade and at the end of second grade. The two groups, however, were about equal on reading tests given at the beginning of the third grade, and group reading tests given at the end of third grade did not show significant differences. The language experience children showed up better in written composition, were more eager to read, and chose more mature books. Stauffer's general conclusion is that children can learn to read well by either method but that the language arts method has advantages that do not show up on group silent reading tests. It should be remembered that his variety of the language arts method included intensive phonics instruction in first grade and alternate months of basal reader instruction from first reader level on.

At the University of Pittsburgh Vilscek et al. (*33, 34*) compared two approaches: 1) a coordinated basal language arts program using Scott, Foresman texts in reading and English and 2) an integrated experience approach to communication. The latter started with experience charts and made a gradual transition to the individualized reading of trade books. The pupil population shrank during the study, in part due to "failure of teachers to conform to the experimental conditions per experimental approach" (*33*). Results at the end of first grade generally favored the integrated experience approach. By the end of second grade, however, there were no significant differences on the reading and language portions of the Stanford Achievement Tests.

## *RESEARCH WITH SPECIAL POPULATIONS*

The cooperative research program included two studies with educationally disadvantaged children in which language experience procedures were compared with skills centered programs.

McCanne (*18*) compared three methods of first grade instruction with Colorado children who speak Spanish at home. One method was a conventional readiness and basal reader approach. The second followed the general procedure usually referred to as TESL (Teaching English as a Second Language). The third was a language experience approach in which the teachers were given units prepared by R. Van Allen. The teachers were all experienced and all had been rated excellent. The classes were located in many communities. There were 98 children taught by each method. The results of reading tests at the end of the year favored the basal reader approach. The author recommended the TESL and language experience procedures as suitable for use at the readiness level for Spanish speaking children but felt that their reluctance to speak freely in the classroom, a cultural characteristic, had been a handicap in the language arts classes.

The CRAFT Project (*10, 11, 13*) was a large scale study with disadvantaged Negro children in ghetto areas of New York City. It ran for three years and included a two year replication study. The basic comparison was between a skills centered approach and a language experience approach. Each approach had two variants. The skills centered approach included a basal reader method and a method in which basal readers were supplemented by a supplementary phonic system. The language experience approach involved a regular language experience method centering around experience stories in the first grade, changing gradually to individualized reading of trade books, usually in second grade. One-half of the language experience teachers were given extra audio-visual equipment and were instructed in how to use it in teaching reading. The study involved 48 classes in 12 schools, with two methods in each school. Methods were assigned at random to schools and to the four teachers in each school, and pupils were assigned randomly to classes. Teachers were given a financial incentive for participating in after-school training activities, and similar workshops were conducted for the four methods. Time logs were kept, and teachers were visited by consultants as well as by research assistants.

At the end of first grade the skills centered approach had higher average reading scores than the language experience approach, but most differences were not significant. The basal reader method had a significant advantage in paragraph reading and in attitude toward reading. At the end of second grade the differences between the four methods were not significant on most measures although the skills centered averages were slightly the higher. During the third grade, in which most children were in basal reader classes, the children who had spent two years in language experience classes made somewhat faster progress; and the final averages were again within the range of chance variation. The school averages for all methods combined were almost half a year higher than in the year preceding the project. In the replication study, using teachers who had been in the original project, again there were insignificant differences between and among methods. In every method there were large differences among the results obtained by the teachers. However, at the end of second grade the total averages were only one month below the norm on the tests used. This result seemed to imply that, in general, the teachers had been more effective during their second year with the same method. It also showed that, under the conditions of extra motivation and inservice training that prevailed during the project, disadvantaged innercity children can be brought close to the norm despite marked deficiencies in readiness.

Several supplementary studies based on the CRAFT Project have been published. Harris and Serwer (*12*) reported that in the first grade, the amount of time teachers spent per day in direct reading instruction was significantly related to the average achievement of their pupils. Morrison and Harris (*19*) found that kindergarten experience seemed advantageous to children in the language experience approach but not to children in the skills centered approach. In another report, Morrison and Harris (*20*) reported that children who were able to recognize a few words when they entered first grade scored high on readiness tests and excelled on all subsequent reading tests even when compared to children with similar readiness scores. Morrison et al. (*21*) did a follow-up study in which the teachers and administrators who had been in the CRAFT Project were interviewed and answered questionnaires a year after the project stopped. Nearly all of the language experience teachers had gone back to a basal reader method, supplemented by more language experience activity than they had used before the project. The skills centered teachers continued to use basal readers, but most of them were incorporating more instruction in phonics and more use of language experience procedures than before their participation in the project. Thus what emerged was a combined methodology, in which basal readers provided the core but were supplemented by considerably more phonics instruction and considerably more effort to use language experience procedures than before.

Serwer (*26*), who was one of the assistant directors of the CRAFT Project, advocates the use of language experience procedures with disadvantaged Negro children. Basing her theory on linguistic writers and using CRAFT results, she argues that such children can do as well with language experience instruction as with skills centered instruction.

Eight cooperative studies compared skills centered and opportunistic procedures. As has been noted previously, some of the methods used were combinations of both, although labeled one or the other. Sipay (*27*) wrote a paper about the cooperative research first grade studies in which he pointed out experimental, statistical, and interpretive weaknesses to be found in some of the project reports. Some of his criticisms apply to some of the studies that have been summarized in this paper.

One more project deserves to be summarized here, and it is the only one concerned with mentally retarded children. Woodcock (*35*) reported a two-year study in which six methods of teaching beginning reading to educable mentally retarded children were compared. One method was a language experience method, and another combined language experience with i.t.a. There were several skills centered methods, including conventional basal readers, readers using i.t.a., readers using rebus pictures, and programed readers. At the end of two years the average pupil scored at mid-first grade level, and there were no significant differences among the methods.

A search through bibliographic sources published between 1965 and June 1970, such as *Research in Education* and *Current Index to Journals in Education*, has failed to reveal any other studies of comparable size and scope that bear on the question of the need for skills centered instruction.

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# Reaction to: TO WHAT EXTENT ARE SKILLS CENTERED DEVELOPMENTAL READING PROGRAMS NECESSARY?

*Lester L. Van Gilder*
*Marquette University*

To give the background and summary of the pertinent research relating to the questions of the needs for skills centered developmental reading programs is the purpose of the paper presented by A. J. Harris. The purpose of this paper is to evaluate that research and to present conclusions and recommendations. The assignment will be handled in the following manner: 1) Extract the essence of Harris's careful, comprehensive, and thorough research; 2) draw heavily on a significant (and germane) source, cited by Harris, regarding interpretive weakness in the cooperative research studies; and 3) conclude with personal thoughts and recommendations.

## *SYNTHESIS OF HARRIS'S RESEARCH*

It is not significant that the language experience approach and/or individualized developmental reading instruction approach are really not new. Harris cites Gates' research findings (*2*) in 1926 which favored the systematic approach to reading instruction (i.e., skills centered) over the opportunistic method of reading instruction (i.e., nonskills centered). Who was it who said there is really nothing new under the sun? Gates' study dates back 45 years.

Harris cogently discusses sponsors of behaviorally stated objectives (skills centered teaching) versus the new group of progressives who call for a free school, wherein the teacher serves as a guide to help the students learn what they want to learn (nonskills centered instruction). And, I would add, when the students want to learn. There need be no dichotomy between these extreme positions: effective, sequential, diagnostic teaching of needed skills can (and must) be combined with interest-centered instruction and free choice of activity—the best of both worlds.

Harris's section on "Classification of Terms" provides an important message for all of us: Is there consistency and accuracy in our use of terms, be it for our own structuring of "new and daring ventures" in reading instruction in the name of creativity; in our own personal research; or in our reading and interpreting results of research conducted and reported by others? Consistency and accuracy of terms pervade Harris's work; for example, "In reading the research [on skills centered and opportunistic procedures] it becomes evident that the label used by the researcher does not always accurately characterize the method [of instruction]."

In the next major area of his paper entitled "Previous Reviews and Critical Analysis," Harris reviews the extensive literature which has grown out of the concern for the language experience approach and with individualized developmental reading. Early studies proved to be arguments favoring such-and-such a program, a description of how it was conducted, or "testimonials from teachers who tried a specific program, and liked it." Several major weaknesses in older experimental studies were emphasized: faulty research design; failure to maintain equivalent conditions aside from the experimental variable; failure, on the part of the researcher, to build in counteractions to the Hawthorne effect; failure to use appropriate statistical techniques for significance of results; and generalized conclusions far beyond what the results of the study would justify.

The significant findings of Sartain's review (*6*) of the literature on individualized reading are threefold: 1) the results of a large number of these studies are inconclusive; 2) individualized reading instruction requires highly skilled teachers; and 3) children of below average ability tend to be more successful in a basal reading program than in individualized reading.

In order to reach some kind of closure in this section on "Previous Reviews and Critical Analyses," Harris's conclusion is important to note: "There has been far less experimental research [with the language experience approach] than with individualized reading. There was . . . much writing and discussion about the [language experience] approach but practically no comparative research."

The major opus of Harris's paper is his section entitled "Recent Research." In this segment he describes one by one ". . . a number of research studies published since 1965, most of which were part of the U.S. Office of Education's Cooperative Program in First Grade Reading Research." It is a thorough description of the findings of the studies which are relevant to the topic of discussion in this section, namely, "Skills-Centered Developmental Reading Programs—To What Extent Are They Necessary?"

It would be redundant to repeat these findings. Suffice it to say that in the *First Grade Studies* many variables were not uniformly controlled in the separate studies. As Stauffer (*8*) reports:

> Wide variation was found among the teachers involved. Data were collected on only two teacher variables: years of experience and degrees held. One is led to believe that the Hawthorne effect was operating because in almost every instance the experimental populations made significantly greater gains than the control populations. And where does all this leave us? No single approach in these twenty-seven studies has overcome individual differences or eliminated reading disability at the first grade level.

The CRAFT Project, by Harris et al. (*3*, *4*, *5*), "Comparing Reading Approaches in First Grade Teaching with Disadvantaged Children" is likewise one of the original 27 first grade reading studies in the cooperative research program. It ran for three years, including a two-year replication study. The design implementation was well executed, and variables were more rigidly and uniformly controlled. Harris gives the details of this carefully done study. Significantly, the results of this two-year extension of the project show that by means of extra motivation and continuing inservice training ". . . disadvantaged innercity children can be brought close to the norm despite marked deficiencies in reading."

Supplementary studies, based on the CRAFT Project, report an emergence of a combined methodology with basal readers as the core, supplemented, however, by considerably more phonics instruction plus much more effort to use language experience procedures. The reasons for citing this research are twofold: 1) to emphasize the need for carefully structured research and 2) to point out a most important concept—there is no one unitary method to teach reading to all children at all times.

### *INTERPRETIVE WEAKNESSES IN COOPERATIVE RESEARCH STUDIES*

A significant article by Sipay (7), which is highly relevant to interpretive weaknesses found in some of the cooperative research studies, is cited by Harris. Following is a summation of the main points made by Sipay, which should serve as guideposts in evaluating not only the cooperative research studies, but also other research studies:

1. Program implementation may have varied within and among projects, hence, affecting obtained results.
2. Programs were not always clearly defined: differences existed in programs labeled as being the same method; all

available programs were not employed. One cannot, therefore, generalize the results to *all* programs.

3. No one individual program was proven to be superior for all children in all aspects of reading measured. It is impossible to generalize the results to *all* children.
4. Teacher variables and instructional settings were quite likely to be equally or more influential than the programs and materials themselves.
5. Treatment groups may not have been equated because of the way in which pupils and teachers were assigned to treatments.
6. Attrition of subjects may likewise have influenced the results.
7. Most of the individual projects did not use the appropriate experimental unit, the class. Obtained results may consequently be invalid.
8. Tests used in individual projects may have had an influence on obtained results.
9. Long range effects of the program have yet to be determined. Stauffer (*8*) states, "The thin crust we have punctured at the beginning reading level was just that and no more."
10. Innovative programs quite likely profited from whatever Hawthorne effect was operative at the time.
11. Reported findings and conclusions were not always accurate and therefore may be misleading.

### *CONCLUSIONS AND RECOMMENDATIONS*

The purpose of this paper is to evaluate the research of Harris. This writer believes that there need be no dichotomy between skills centered teaching and nonskills centered instruction. Further, effective, sequential, diagnostic teaching of needed skills can and must be combined with interest-centered instruction and free choice of activity. One should not exclude the other.

Major weaknesses in older and newer experimental studies were found and reported thoroughly and carefully by Harris. These weaknesses were poor research design, lack of equivalent conditions aside from the experimental variables, lack of built-in counteractions to the Hawthorne effect, lack of use of appropriate statistical techniques for significance of results, and generalized conclusions far beyond what the results of the study would justify.

The CRAFT Project was cited as a 'tight" study of three years' duration which built in safeguards for the reader and the user of research.

Sipay's guideposts (*7*) to evaluating not only the cooperative research studies but also other research studies were presented to serve as models for the researcher and the user.

Recommendations, which are the by-product of Harris's study, would be:

1. That the classroom teacher understand the interpretive weaknesses of much of the research in reading and use the guidelines offered throughout the entire section.
2. That we consider DeBoer's query as to why we continue to compare reading method x with reading method z, and find the mean average gain of the mean average child, when we as teachers never really ever see a mean average child in a classroom or clinic (*1*).
3. Finally, that we remember there is no one method, no one set of materials for teaching all children at all times; that the enlightened, well-trained teacher, who knows and cares, is perhaps the major factor of success in reading instruction.

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# NEW DIMENSIONS IN BASAL READERS*

*Albert J. Harris*
*The City University of New York*

The term "basal readers" is taken to mean an interrelated set of materials for teaching fundamental reading skills. At a minimum, such a set requires a sequence, graded in difficulty, of reading materials for the learners and manuals that provide directions on how to teach with these materials. Many different kinds of supplements and accessories to this basic minimum are available.

## *OBJECTIVES*

The objectives which have guided the development of most basal reader series have changed little since the publication of *Report of the National Committee on Reading* (*6*) in 1925 and *Reading in the Elementary School* (*4*) in 1949. Both of these influential yearbooks call for a balanced and comprehensive set of objectives in which silent and oral reading, mechanics and comprehension, study skills and recreational reading, and group and individual needs are given balanced attention.

There have been three recent trends in regard to reading objectives. The first is the insistence of some writers that, in the early stages of reading instruction, decoding should be stressed and comprehension should be soft-pedaled. The point of view is not new but has received recent support from some linguists and from Chall (*1*).

A second trend in objectives is increased attention to critical reading and to the development of creative thinking through reading.

A third trend is toward the reformulation of objectives into behavioral terms. A behaviorally stated objective specifies the particular behavior that a pupil has to display in order to show mastery of it. The emphasis is on what the pupil does to elicit this behavior. An older statement of an objective as "to arrange ideas in proper sequence" can be restated behaviorally as "Given a reading selection and a list of statements relating to its content, the student will place these statements in order of their occurrence in the selection" (*5*). The behavioral statement specifies a way of testing for mastery of the objective. Space does not permit me here to discuss in detail the merits and limitations of behaviorally stated objectives, but an opposition to their use is beginning to be heard (*2*).

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### *VOCABULARY CONTROL*

From the 1920s into the 1950s, publishers vied with one another in reducing the number of words introduced in a basal reading series. The bottom was reached when one series taught fewer than 1,200 different words in its readers for the primary grades. Olson's study showed that in the early 1960s new words totalled 54 to 83 at preprimer level in widely used series; 113 to 173 at primer level; and 285 to 340 at first reader level. Since then the trend has been toward richer vocabularies.

In recent basal reader series, vocabulary is controlled in one of two ways. In readers with a phonic, linguistic, or phonic/linguistic approach, the tendency is to teach words that have a particular phoneme-grapheme correspondence in common in a group and to restrict vocabulary to words which fit into the patterns that have been covered. Exceptions to the patterns are usually taught later. The resulting sentences at beginning level seem artificial and contrived. In eclectic basal readers, words are introduced gradually in a sequence governed by the story to be told, and usually phonic and structural generalizations are introduced in a sequence that is based on the word stock already available. The limitations of children's knowledge of word meanings require some continuation of vocabulary control after word identification skills have been covered, but this condition tends to be observed more strictly in eclectic readers than in phonic or linguistic readers. Basal readers using a revised orthography, such as i.t.a., are usually phonic or linguistic in their approach to vocabulary control.

### *HOW SKILLS ARE TAUGHT*

There is quite wide variation in methods of teaching word identification skills. Among recently published basal reader series one finds two that use a modified linguistic approach, one that employs a rich vocabulary but relies heavily on learning the words in context, and two that introduce and apply phoneme-grapheme generalizations as new words are introduced. Eclectic basal readers have begun to use linguists and psycholinguists as consultants and to pay attention to their recommendations about the ways in which skills should be taught. Most linguistic and phonic series emphasize spelling patterns, which used to be called word families, but there is wide variation in the teaching of phonic generalizations. A small minority use a synthetic phonics approach in which sounding and blending are emphasized.

In regard to comprehension skills, there has been a recent tendency to place less emphasis on literal comprehension and more on interpretation, inference, critical reading, and creative reading. Somewhat greater emphasis tends to be given to study skills. Rate and flexibility are still given little attention in most basal reader programs.

### *CONTENT*

There are three main trends in regard to content. The first has been a change with regard to characters and their environments. The animals and folk and fairy tales remain, but there has been a recent rather general effort to replace the middle-class white stereotype with ethnic and environmental pluralism. One finds more emphasis on urban settings, on members of minority groups, and on problems related to limited income.

A second trend has been the disappearance of the one family cast of first grade characters from some recent series. Other series start with one family but drop it earlier than formerly. In some series, anthropomorphic animal characters replace human characters in stories for beginners.

A third recent trend has been an increase in the amount of nonfiction, particularly for intermediate grades, making it possible to teach basic study skills with more appropriate content. The practice of placing fiction and nonfiction in separate books has been tried but does not seem to be becoming a trend.

### *PROVISIONS FOR SKILLS PRACTICE*

The traditional medium for skills practice has been a workbook to accompany each reader in a basal series. These correlated workbooks have not changed much in recent years. One series reduces the amount of teacher assistance needed by providing self-help cues at the top of each page. Self-help is also provided in some series by including small picture dictionaries and glossaries in the readers, as low as preprimer level. Many publishers provide exercises in the form of pads of stencils that can be used to project skills exercises for group use. A beginning has been made in supplying recordings which give directions for exercises and then provide answers for self-correction.

Although two quite similar series of programed booklets that combine the functions of reader and workbook appeared early in the 1960s, a trend toward greater use of programed material does not seem to have been established. The computer techniques needed to teach beginning reading by computer-assisted instruction were worked out several years ago. Computer-assisted reading instruction remains at the level of experimental exploration and is likely to remain so until two conditions can be satisfied: 1) the cost brought down to a competitive level and 2) the software or teaching content developed to a satisfactory level in quantity and quality. There seems more promise at present in the use of computers to give and score tests as an aid in individualizing instruction, providing diagnostic information to the teacher, as in what is called "individually prescribed instruction."

### *ENRICHMENT*

The teacher's guides for basal readers customarily provide suggestions to teachers about stories, books, poetry, and music that are related to the reader content and may be used for enrichment. The new trend is to provide these materials in convenient packages as optional supplements to the program. These supplements may include such items as paperback books for use as independent supplementary reading, recordings of the supplementary books to allow children to listen to the story while looking at the print, a book containing stories for the teacher to read to the children, and boxes of games and puzzles that reinforce skills taught in the program.

### *VISUAL, AUDIO, AND KINESTHETIC ACCESSORIES*

As has been mentioned earlier, filmstrips and transparencies have been used as optional supplements in the skills development program. Certain types of recorded materials have also been mentioned, including recorded story books and recorded directions and scoring for practice exercises. Cassette tapes seem to be gaining over phonograph records. The main drawback to the expanded use of recorded accessories has been the rather high unit cost of the recordings.

Combinations of visual display units with recordings have been developed outside of basal reading programs but have not been utilized to any extent as basal reader accessories. One form of audiovisual material is a combination of filmstrip and recording which has been available for many trade books for some time. Another form of audiovisual presentation is provided by the Bell & Howell Language Master and similar machines. These use large cards with a strip of recording tapes on each. When the child places the card in the machine, he can hear the word spoken as he looks at its printed form. This technique, already well established in remedial work, does not seem to have been used yet as a basal reader accessory.

Three-dimensional materials, the shapes of which can be felt as well as seen, were used as an accessory reading readiness device in one series about a decade ago. After being ignored by other publishers for many years, this idea seems to be reappearing. A recent form of kinesthetic reinforcement uses stencils which guide the tracing and coloring of letters. Tracing and writing are also being used more often in recent first grade workbooks.

### *FORMAT*

The basic format pattern set by the McGuffey Readers over a century ago has lasted to the present. This pattern provided a graded series of books, hardcovered and illustrated, one for each grade of the elementary school. Of course, the series gradually became more elaborate. The first grade program evolved into one or more readiness books, a primer, and a first reader. Two hardcovered books became customary for the second and third grades. Often the series stopped at sixth grade.

During the past decade a number of departures from this traditional format have been tried, and at this point it is not easy to discern a definite trend.

The powerful influence of the paperback has finally caught up with basal readers, with one very recent series offering schools a choice between a conventional hardcovered reader and the same content bound in units with paper covers. It is too early to discern whether this will become a trend.

Print size has remained fairly constant for many years. There is an increasing use of sans serif type, which resembles manuscript writing, in the first grade and sometimes higher. This usage has a certain logic to it, as it reduces the number of different letter forms which the beginning reader has to learn. In the intermediate grades, the use of two-column pages becomes common.

Illustrations have continued to be used lavishly, especially in primary grade readers. Basal reader art shows great variety. Realistic pictures, photographs, diagrams, maps, and charts may accompany factual selections, while the art accompanying fiction ranges from realistic through a simplified cartoon style to the distorted and abstract. Art tends to run to the end of the page, and indefinite boundaries are common. Vivid colors characterize the book covers and illustrations.

The influence of the nongraded school has recently been noted in the ways in which basal readers are labeled. Traditionally each reader has been marked with the grade, or part of a grade, at which it was normally expected to be used. The recent trend is to number the books in sequence by levels, encouraging teachers and pupils to get away from the idea that a particular book should necessarily be read in a particular year of schooling.

### *SUMMARY*

While innovations in basal readers have appeared in the past decade, relatively few of them have become widely adopted. In regard to objectives, there has been an increased emphasis on decoding in beginning reading, a shift from emphasis on literal comprehension toward critical and creative reading, and a very recent interest in behaviorally stated objectives. In vocabulary control, recent series employ richer vocabularies although most retain some restriction on new words through the sixth grade. There is quite wide variation in the procedures used in teaching word identification skills while critical and interpretive reading and study skills receive increased attention.

Content shows a trend toward a multi-ethnic, multicultural scope. The one family cast of characters in material for beginners is retained in some recent series but dropped in others. More nonfiction is used, especially in the intermediate grades. Skills practice is provided in several additions to, or alternatives for, the traditional workbook. Pads of stencils for use on duplicating machines, transparencies and filmstrips, and recorded directions and scoring are among the recent additions. Programed combination text-workbooks exist, but most basal readers do not provide programed skills practice. Computer-assisted instruction has as yet not influenced basal reader methodology.

The recent trend in enrichment is to provide in convenient packages the kinds of enrichment materials formerly just mentioned in the teachers' guides. Visual and audio supplements exist, but combined audiovisual accessories are not available for most basal series. Kinesthetic procedures such as feeling, tracing, and writing are given increased emphasis at readiness and beginning levels. In format, new trends include use of paperback units, type which resembles manuscript writing at early levels, and two-column pages at upper levels. Illustrations have become more varied in style, and readers tend to be numbered consecutively by levels rather than identified with specific grades.

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# HOW THE READING TEACHER CAN HELP PARENTS

*Joan B. Nelson*
*University of Pittsburgh*

Let me first describe what I think is the most frustrating school-related experience for parents. Their first face-to-face communication with school personnel may be initiated by a summons to discuss their child's reading progress. The parents meet with the reading teacher and are informed that, in spite of the teacher's herculean efforts, Johnny is not making good progress in reading. This information is usually coupled with comments regarding Johnny's improper attitude and behavior in the classroom and on the playground. Out of their increasing uneasiness over having spawned and succored such a problem child, the parents ask how they can be of help. The teacher, feeling somewhat uneasy herself at this point, gives some sage advice about encouraging Johnny to do better, providing plenty of appropriate reading material, setting aside time for reading, and taking every opportunity to reward "appropriate" behavior.

Poor advice? Of course not. The teacher has voiced the fitting educational platitudes. The problem is that for the majority of parents who have little background in education and psychology, the advice is not translatable into suitable action. Moreover, many parents in their frustration, translate the nonspecific advice into action that results in increased guilt on their part and unreasonable pressure on the child.

What typically happens after a parent-teacher conference of this kind? On the way home the parents, assuming that they are at least partly to "blame" for the child's difficulty, begin to plan an attack on the problem. They may see the child's inappropriate behavior as a cause rather than a result of the reading difficulty. Occasionally, they argue among themselves about who is to blame and what is to be done. By the time they confront the child, the climate is set for an emotional scene with ultimatums about future behavior, a time set aside for reading, and even threats of punishments. This kind of pressure is almost certain to make the child feel guilty about his learning difficulty and cause him to dislike reading, a combination which in turn makes it even more difficult for him to learn. Sensing trouble in the context of reading, he uses any excuse to avoid the anxiety-ridden activity and tends to engage in further acting-out behavior to relieve his tension. Thus, the parents and teacher, in their concern for the child, get the opposite result from the one they had hoped for. Indeed, it might have been better had the parent-teacher conference not occurred since the parents will ultimately ease their anxiety and frustration by placing the blame back on the teacher, the reading program, and the school. It is this very cycle of increasing difficulty that makes educators wary of engaging parents in any meaningful role in the education of their children.

This vicious cycle is not necessary, however, if the school plans a program in which parents are treated as partners in the education of their children from the very outset. For a child to reach his full potential in reading, a concerted effort by both teachers and parents is essential. What we need is a commitment to building positive relationships between home and school *before* any difficulty occurs. Fleming (*3*) lists four ways that the schools can provide opportunities for communication with parents:

1. Increase the accessibility of administrators and teachers to parents.
2. Provide opportunities for parents and teachers to study and learn together.
3. Provide for parents and teachers to plan together for ways of improving and enriching the school.
4. Determine questions parents have and attempt to provide ways of helping them with such questions.

What part can the reading teacher or reading specialist play in building home-school communications which will result in the improvement of children's learning? To help their children most effectively, parents must know something about the reading process and its relation to the language processes and child development; they must be familiar with the reading program of the school, its rationale, its goals, and its practice; and finally they must be given specific directions and demonstrations of ways that they can help their children. Glittering generalities lead to frustration. If parents are expected to help, they must be given clear and specific advice on how to do it.

The following are suggestions for reading specialists and reading teachers to use in helping parents to improve their children's reading. While some of these suggested activities are not easy, they are practical in the sense that they are now being practiced in various school districts around the country. That which is practical is not necessarily easy but is concerned with what is sensible, efficient, and effective in actual practice.

### *SUGGESTIONS FOR READING SPECIALISTS*

As a reading specialist you are likely to be responsible for planning, implementing, and supervising the reading program for one or more schools in your district. You probably have the power to influence reading teachers, principals, and other reading specialists to begin to explore ways of involving parents in the reading program. Parent involvement is doomed to slow acceptance or even rejection if the entire reading staff is not involved in the early stages of planning.

Begin by exploring your own attitude and the attitudes of your colleagues toward parent involvement. There are consistent differences in attitudes toward parents among school personnel arising from the fact that in some schools the parents outrank the teachers in socioeconomic status while in other schools the opposite is true. Some teachers have a deferent attitude toward parents, and others have a patronizing one. Neither attitude is conducive to establishing partnerships between parents and teachers. These attitudes, combined with past experiences similar to the parent-teacher conference already described, will probably result in a great deal of skepticism about parent involvement. There is, however, convincing evidence that parent behavior influences a child's progress in reading and that involving parents in the program results in greater reading gains for children (*1*). For a review of research on parents and reading achievement consult Della-Piana (*2*).

It is not suggested that a change of attitude will occur as a result of knowledge of research findings. An awareness of one's attitudes and access to correct information are necessary but not sufficient requisites for change. Attitude changes occur with experiencing people and situations in a new way. Thus, the reading specialist would be wise to recruit only those staff members who are open and enthusiastic about parent involvement to participate in the initial phases of the program, allowing the skeptics to experience the positive results.

The program for parent involvement will vary according to the type of community the school serves, but pursuant to Fleming's suggestions the reading specialist may wish to proceed as outlined below.

1. Plan a series of meetings for parents of preschool children to explain the school's reading program. Suggested topics for these meetings should include:
   - The Nature of Reading and the Readiness Concept

- The Rationale, Goals, Methods and Materials of the School Reading Program
- The Causes of Reading Difficulty
- The Use of Library Books and Trade Books by Children at Home

As an example of the content of these meetings, the first topic might include an explanation of the importance of reading in the total school program, the relationship of the reading process to the child's language development, and the necessity of meeting the needs of the child that are prerequisite to the need for knowledge. (Maslow's hierarchy of needs may be used here to give parents a sense of the physical and psychological needs of the child that must be met before the need for knowledge becomes prepotent). Finally, the prereading skills should be defined and specific suggestions provided to help parents initiate readiness training for their children. (See Appendix for an example of a prereading skills activities list.)

2. Plan a time when reading teachers are regularly available to meet with parents on an informal basis to discuss specific problems or answer individual questions. The questions most often asked by parents include the following (*5*):
   - What is reading readiness?
   - What can I do to help my child with his reading?
   - Why don't the schools teach more phonics?
   - How can I get my child to read?
   - What is remedial reading?
   - Why isn't oral reading used more in our schools?
3. Prepare lists of specific activities appropriate for the home that would be useful for strengthening various aspects of reading development, such as the following:
   - Prereading skills (see Appendix)
   - Primary word recognition skills
   - Intermediate word recognition skills
   - Improvement of oral reading
   - Comprehension skills
   - Work-study skills
   - Vocabulary development
4. Prepare lists of trade books appropriate to various reading and interest levels. (The appendix of Hopkins' book (*4*), lists books of interest for the urban and disadvantaged child plus outstanding volumes of Negro poetry. The books are listed by grade level to aid parents in their choices.)
5. Encourage parent study groups and provide bibliographies pertinent to topics of interest.

6. Plan classroom demonstrations of methods and materials to be followed by questions and discussions.
7. Plan special meetings for parents whose children are experiencing difficulty in reading. Provide information about the causes of reading difficulties and the special help that is provided for these children within the program. Provide demonstrations of ways parents may help the child who is experiencing difficulty. Demonstrations may take the form of videotaped sessions illustrating suggested activities and examples of supportive behavior. Role-playing sessions may be used in which the parent plays the part of the child and attempts to experience the child's anxiety and frustration. The ambitious reading teacher may wish to work with both parent and child by demonstrating an activity, allowing the parent to work with the child, and providing feedback on the effectiveness of performance.
8. If school regulations permit, the reading specialist may train a corps of interested parents to be volunteer tutors or teacher aides. School districts which have adopted a tolerant attitude toward parents as tutors and aides have been pleasantly surprised by the results. Some of the advantages cited are as follows:
    - Children see parents and teachers work together to help them learn.
    - Children get more individual attention.
    - Parents and teachers increase their understanding of one another.
    - Teachers have time to use their professional skills more effectively.
    - Parents become interested in careers in education.

Parent tutors and aides may engage in a variety of activities, such as the following:

- Giving practice in skills previously taught by teacher
- Performing various clerical duties
- Correcting workbooks and assignments
- Preparing practice materials
- Preparing bulletin boards

9. Invite parents to attend selected inservice sessions describing innovations and the latest techniques of reading instruction.

## *SUGGESTIONS FOR THE READING TEACHER*

As a reading teacher you are probably responsible for the developmental reading instruction of several groups of children and/or for the diagnostic and corrective reading instruction of children experiencing difficulty with reading. In this role your present experience with parents is probably limited to diagnostic interviews and parent-teacher conferences designed to communicate to the parent specific information about his child. Even though your contact with parents is presently limited, there are a variety of ways to help open new lines of communication and to improve the effectiveness of the lines presently available.

*Suggestions for Developing New Lines of Communication*

1. Urge your principal to involve parents in the reading program at the outset by planning informational meetings for parents of preschoolers who will be attending your school. These meetings may touch upon the concept of readiness and the nature of the reading process. The school's reading program should be described and specific suggestions given to parents regarding the development of prereading skills.
2. Support your reading specialist or supervisor in his efforts to open lines of communication by:
   a. expressing willingness to have parents attend inservice sessions,
   b. volunteering to take part in classroom demonstrations followed by group discussions,
   c. volunteering to lead discussion groups on topics of interest,
   d. opening your classroom for frequent visits by parents,
   e. volunteering to prepare lists of activities appropriate for developing specific reading skills,
   f. being open to suggestion by parents regarding the improvement of the reading program.

*Improving the Effectiveness of Parent-Teacher Conferences*

1. Don't in any way suggest that the parents are to blame for their child's reading difficulty. Parents send us the best children they have. If they had any better children, they would send them. It is a rare parent indeed who would purposely cause his child to have difficulty in school. Even if you recognize parent behaviors that appear to be causal to the child's problems, don't place any blame. The parent is most likely unaware of the relationship between his behavior and the difficulty. If you make him feel guilty, he is apt to rationalize his behavior and shut out the communication of positive remedies.
2. Don't make communication more difficult by adopting a

deferent or patronizing attitude. Too much deference causes the parents to lose confidence in the teacher's ability and competence. A patronizing attitude leads to hostility. Attempt to establish a partnership with the parents in your endeavor to help the child.

3. Don't speak to parents in clichés and glittering generalities. Unless the parent can translate your advice into positive action, the result will be frustration for the parent and increasing anxiety for the child.
4. Don't give the impression that your reporting to the parents places the responsibility upon them. The more pressure the parents put on the child, the less likely a positive outcome will result.
5. Do prepare for conferences with parents by reviewing carefully the child's record, test scores, and your analysis of his reading progress.
6. Be ready to tell the parent how the child's reading progress compares with his reading expectancy in terms of his age, grade level, and scholastic aptitude.
7. Explain to the parent the specific difficulties the child is encountering, i.e. whether he is having trouble with word recognition, comprehension, study skills, or a more generalized deficiency.
8. If the child is engaging in inappropriate classroom behavior, be sure that the parents understand that it is probably the result of the learning difficulty rather than the cause of it. Both parents and teachers should be aware that out-of-bounds behavior is often a device used to avoid the anxiety producing reading situation.
9. Explain to the parents how you as a reading teacher plan to deal with the child's difficulty. Tell which skills you will focus on and the kinds of experiences you plan for the child. Your plan for positive action will give the parents confidence that the child can be helped and assurance that the problem is not theirs alone.
10. If you ask the parents to help, be specific about what you want them to do. If possible, give them prepared lists of suggestions designed to help with the child's specific difficulties. Be sure that the lists stress the importance of self-concept and sense of competence so that parents in their zeal to help do not put undue pressure on the child.
11. If there is a possibility of a vision or hearing defect, be sure to suggest referral to an appropriate specialist.

12. If you suggest that the parents provide reading material for the child to use at home, be prepared to provide a list of books and periodicals which are appropriate for the child's independent reading and interest levels. When specific materials are not suggested, the parents are apt to fall prey to attractive but relatively ineffective commercial materials advertised to "make your child a better reader."
13. If you ask the parents to reward appropriate reading behaviors, be prepared to offer specific examples and demonstration of parent behaviors that will build the child's self-concept and his sense of competence in reading. (For example, you might say to the parent, "Take time to have the child read aloud to you. The reading material should be at the child's independent reading level so that he may read it with relative ease. Listen wholeheartedly but without criticism. Enjoy the story with the child. Compliment him on his progress. If he stumbles over a word, supply it for him in an easygoing way. Let him know that his reading gives you pleasure. Make reading a pleasant experience for him.")
14. End the conference on a positive note. Encourage the parents to attend information meetings about the reading program and discussion groups on topics of interest. Have the dates, times, and topics of future meetings ready to hand out. Give parents a sense of partnership in the educational enterprise.

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## APPENDIX

### *SUGGESTIONS OF WAYS TO HELP YOUR CHILD DEVELOP READINESS FOR READING**

1. Cultivate your child's power of close observation—*Visual Discrimination*
    a. Lead him to discover likenesses and differences in objects, pictures, growing things.
    b. Lead him to make comparisons *in sizes* (big, middle-sized, little; large, medium, small; tall, short),
    *in shapes* (round, square, flat),
    *in colors*, and
    *in numbers* (many, few, and actual count of objects).
    c. Lead him to notice details, study pictures and objects carefully.
2. Cultivate your child's ability to recall what he has seen—*Visual Memory*
    a. What did you see on the way to the store?
    b. What was in the store window we just passed?
    c. What did a certain fruit, vegetable, or toy look like?
    (size, color, shape)
3. Cultivate your child's power to listen carefully—*Auditory Discrimination*
    a. Note likenesses and differences in sounds heard all around home
    (loud, soft, high, low, shrill, gentle)
    b. Note likenesses and differences in sounds of words
    (think of words that begin with the same sound—sing, see, sail, snow, skate, skip)
    (think of words that end with the same sound—man, ran, can, pan, tan).
    c. Say two words—have child tell whether they begin alike, end alike, or are not alike at all.
4. Cultivate your child's power to remember what he has heard—*Auditory Memory*
    a. Have child *repeat exactly* a direction after *hearing it once*.
    b. Have child follow directions exactly ("*Run* to the door; shut it *quietly; hop* back to me.").
    c. Repeat songs and poems the child has heard.
5. Build up your child's fund of information—*Background of Experience*
    a. Encourage child to ask worthwhile questions about things all around him.
    b. Help child to find answers to his questions himself whenever possible.
    c. Take child to see and do things within the range of his understanding and enjoyment (on picnics, to the zoo, on walks in woods).

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* Compiled by the Reading Department of the West Jefferson Hills School District, Pennsylvania.

   d. As far as he is able to understand, encourage him to discover the "how" and "what" and "why" of the things he sees and uses daily.
   e. Help child to develop ability to classify his knowledge of objects (things that fly, things that swim, things we find on the farm, those we find in the city, those which are fruits or vegetables, things which have feathers, things which have fur).

6. Develop your child's ability to express himself through *Language*
   a. Have him retell stories you have read or told to him.
   b. Have him make up stories about pictures he looks at.
   c. Encourage him to recount experiences he has had.
   d. Encourage him to tell "make-believe" stories—being sure that you both know they are make-believe.
7. Encourage your child to develop his *Muscular Control*
   a. Encourage running, skipping, hopping, jumping, skating, bouncing, and catching balls, etc. to develop large muscular coordination and to give child a feeling of assurance in the ability to do many things with his body.
   b. Encourage careful coloring of large outline pictures, cutting, pasting, working with tools, etc. to develop muscular coordination in his hands.
8. Develop your child's *Sense of Responsibility*
   a. Have him learn to finish a task before leaving it.
   b. Have him learn to work steadily without dawdling.
   c. Have him learn to clean up when task is completed.
   d. Have simple tasks which he does daily as a part of his regular contribution to the family living—for which he is responsible.

*Two things to keep in mind*

1. See that the child gets satisfaction from all of these experiences.
   a. Praise honest effort.
   b. Make a "game" of these activities and play these "games" *with* your child—enjoy these things with him.
   c. Show pleasure when child has success—when he shows improvement.
   d. If child is unsuccessful, give him positive suggestions of what to do to improve—*avoid don'ts.*
2. Because a child is six years old, he is not necessarily ready to read.
   a. All children *mature at their own rate of speed.*
   We can cultivate the soil and enrich the ground, but we cannot make a plant bloom before it is ready. This same is true for the child—we can give him the best environment possible and then we must have patience to wait for him to mature at his own pace.
   b. Your child will enjoy his reading if he is not forced to try it before he is mature enough to have success with it.

# SOME THINGS THAT READING TEACHERS NEED TO KNOW ABOUT LANGUAGE

*Roger W. Shuy*
*Georgetown University*

In a recent conference in Washington, D.C., one well-known educator observed that people who make a living doing things that they don't know how to do are really only quacks, in the patent medicine sense of the term. This observation should give us considerable pause in the field of reading, for there are numerous things that we are doing that are little understood by teachers or researchers and that we can only imperfectly describe. This level of innocence is probably not so pronounced as it seems to be in Michigan, however, where in a recent publication the following advertisement appeared:

> WANTED: Man to work on nuclear fissionable isotope molecular reactive counters and three-phase cyclotronic uranium photosynthesizers. No experience necessary.

Many volunteer reading programs in this country suffer some of the same problems. The director of one such program recently told me, in fact, that he had far more well-meaning, nice people on his staff who knew practically nothing about the task they were trying to carry out than he knew what to do with. It seems utterly incredible that programs would even consider turning over the most important task a child will ever learn to well-meaning volunteers.

On the other hand, how much less incredible is it that the training of reading teachers has proceeded, to date, with practically no emphasis on training future teachers to hear, distinguish, and analyze the language that the child brings with him to school and to which most of his reading will relate. How much less incredible is it that certain unfounded language stereotypes are preserved, even nourished, in the training program of future teachers who are often told that the disadvantaged child has few experiences, that he does not use language in his home, that he has a linguistic deficit, that he is nonverbal, that he must be taught his language, that school will provide a language model, and that language mistakes are to be avoided and corrected. Such training, usually offered in only one or two courses at the undergraduate level, manages to instill most of these stereotypes before the teacher even sees her first live pupil. Perhaps the Michigan people are right. Perhaps it would be better to have no experience at all than to have one which so badly mischaracterizes the language situation in the real world.

What is the real world, linguistically, that surrounds the child when he enters the first grade? He hears language all around him —from peers, from parents, from teachers, and from television. Some hear more than others, but there is no evidence to support the claims of some researchers that certain disadvantaged children live in some sort of verbal isolation. In fact, it is difficult even to imagine how data supporting such a thesis might be accumulated. The presence of the researcher normally has a negative effect on the quantitative production of speech, and the child soon learns that the safest way to avoid being wrong is to keep his mouth shut.

Research on the acquisition of language done to date specifies and generalizes the learning of phonological and grammatical patterns rather well (*6*). What is generally overlooked, however, are the sociolinguistic dimensions of language acquisition. At what point does peer group modeling take over from parental influence? What pressures are placed on the child by his peers to avoid using schoolroom English? What role does the concept of masculinity play in causing male speech to be generally less-standard than female speech (*5*)? Does the black child feel identity pressures to preserve ghetto speech even in the face of strong pressures from the school to change it? How can we teach English to children in bilingual education programs without ultimately erasing their native language? The real world that surrounds children as they first acquire the basic forms of language and then learn to vary it according to the many functions in which language is used puts considerable pressures upon them. In the important matter of the training of reading teachers we will need to take this complex situation into account. Teachers need to know how language acquisition takes place and when to expect children to be able to distinguish between sentences such as the following:

1. John tells Mary to jump up and down.
2. John promises Mary to jump up and down.

In sentences like number one, the object of the verb *tells* will do the action, in keeping with the minimal distance principle that the noun closer to the infinitive serves as its subject. In sentence number two, the subject, John, also serves as the subject of the infinitive, violating this principle of minimal distance. Chomsky points out that as children mature in their understanding of English syntax, they will gradually learn to distinguish between these two otherwise identical classes of verbs. Some children at age six are beginning to make this distinction. Others do not make it until many months later. Likewise, the acquisition of indirect question syntax seems to be generally acquired at about age ten (*2*). The following sentences are illustrative:

3. Mary said, "I will go home."
4. Mary said that she would go home.

The complexities involved in such syntactical embedding involve adding the relativizer *that* and changing the pronoun and tense markers. Such an operation is not to be expected of children in the early grades.

Features of language acquisition such as the preceding may seem relatively unimportant in the training of teachers unless one considers the fact that many published reading programs have not taken such matters into consideration. Occasionally, children are asked to read sentences like the following:

5. Jerry swung his bat. Over the fence went the ball.
6. Round is a kitten.

The second part of sentence number five begins with a prepositional phrase followed by a predicate even though few if any children (or adults) speak sentences like this. The last sentence is syntactically unpredictable. It is metaphorical (by definition, unpredictable), and the association of roundness with a kitten is implied rather than stated. The problem of when a child is ready to handle metaphor in reading remains open for debate; but if it is important to preserve predictability in beginning reading, the effect of metaphor should be assessed.

In any case, it is important that reading teachers have baseline knowledge of how children acquire language so that they can determine what to expect of children and how to determine when the difficulty is the child's and when it is a result of ineffectiveness of the teaching. An analogous situation exists today in the field of speech therapy. The major attention of speech clinicians is said to be on speech pathologies such as stuttering, late acquisition of development, and therapy resulting from cleft palate or injuries of some sort. Unless speech therapists are given specific training into the nature of socially induced language variation, however, it will be difficult for them to determine with certainty whether r-lessness or some other linguistic phenomenon is a result of a pathology or a social environment. Children who speak the regional and social dialects of their home communities cannot be considered pathological. They are not ill or injured; the problem is not physical or emotional. A child speaks the language that he hears and reveres. That is all we can expect him to do.

The reading teacher should know what to expect of a child's acquisition of language along a time line but also in the various social and situational dimensions. She should know something about the various types of language variation that exist in this country, especially in terms of region and society. It may seem paradoxical that children are urged to vary the vocabulary and grammar patterns of their written compositions but are downgraded when their pronunciation and grammar vary from the accepted norm of the classroom, but this situation most assuredly exists in our country. Rudorf (*3*) notes how teachers from one part of the country systematically downgrade the oral reading of children from other parts of the country.

Since geographical variation is generally known and understood by most people, it seems reasonable to use regional dialects as a beginning point for the instruction of teachers in language variation. There are several books, records, and tapes available for illustrative purposes (*4*). Emphasis should be placed on the systematic nature of geographical differences, whether grammatical, phonological, or lexical. Teachers could be guided in some data gathering of their own in all three categories, both for obtaining inductively such variation and for practice in getting used to discovering and describing language patterns systematically.

Once geographical variation is fairly well studied, the next focus should be on social dialects. Attention should be given to problems of the relationship of attitudes to labeling (Black English, ghetto speech, disadvantaged language, nonstandard Negro English, Negro dialect, Texmex), but the major thrust should reflect the recent work of sociolinguistics. Teachers should be guided to understand that there are complex historical origins for much of the nonstandard English that they hear and that no child speaks a total or pure nonstandard dialect. That is, if the listener is willing to wait long enough and provide the appropriate stimulus and setting, the child will often produce the standard form. This concept of the linguistic variable should provide a considerable focus in the training of teachers, along with the notion of language interference from one system to another, and the idea of style shifting (*1*).

If the reading teacher is to be trained in the nature of language acquisition and sociolinguistics, she will also need to have some drastic reorientation in the nature of language and linguistics. Because of historic circumstances, the study of reading instruction was undertaken long before the disciplines basic to the study of reading were very well developed. In fact, it has been only within the past decade that psychology and linguistics have been able to develop systematic theories which hold any hope for improvement over the theories long held by reading specialists. Perhaps since reading researchers were relatively independent of any other disciplines during much of their early development, they have not easily joined into the recent developments in the behavioral sciences. But today both linguistics and psychology have developed powerful theories for analyzing cognitive behaviors. And even further interdisciplinary relationships, psycholinguistics, and sociolinguistics have offered more refined tools and techniques with which to analyze the basic behaviors underlying the reading processes. Today, in fact, it seems impossible to study reading instruction apart from instruction in the other aspects of language skills. Linguists have argued for the need to see the interrelationship of oral language and reading, particularly in terms of the systematic differences between types of oral language (regional, social, stylistic), and now there is reason to believe that written composition may also be a fruitful introduction to reading skills. This attempt at reuniting reading with the other language skills leads to many other interesting areas for serious consideration. Not only must we know a great deal about the language systems of the children whom we plan to make literate but we must also know a great deal about the language of instruction (both that of the teacher and the text), about comprehension of both reading and oral language, and the interrelatedness of the study of language acquisition and concept development.

All of these areas are language oriented areas, in one way or another; and if a teacher is to be helped, she will need to be trained along lines which will allow for perspectives and skills drastically different from those in extant reading programs. For one thing, she will need to develop attitudes toward language variations which treat them as systematic and adequate rather than deficient or as deviations from some norm. In this respect, psychologists and educators have historically begun with an assumption quite different from that of the linguist or social scientist. In addition to language attitudes, values and beliefs, training will need to be provided in phonetics (in order to learn how to recognize and produce phonetic differences) and on the study of grammar (in order to be able to talk intelligently about such matters as grammatical interference of one language system on another during the acquisition of reading skills). As university training programs are now set up, little or no provision is made for such training. Extant courses in linguistics departments and English departments are more apt to reflect the graduate training biases of their teachers (usually in generative linguistics and philology, respectively), and these courses are practically never designed especially for the needs of a future reading teacher.

There will be little payoff for any restructuring of the training of reading teachers along the lines noted, however, unless future teachers are placed in contact with real children earlier in the training programs. On all sides, education is being criticized these days for its dramatic isolation of training from the real world. Perhaps something in the establishment of both school systems and universities has prevented this placement of teachers in the schools until the last quarter of their senior year, but it has become apparent that there is no time to tolerate the situation any longer. A language emphasis in the training program provides an easy rationale for early entry of future teachers into the real school situation. Nothing could be more useful in the training of reading teachers than giving them assignments in field work on child language and in speech, reading, and writing (in that sequence). After the teacher has been trained in phonetic skills, grammatical analysis, and language acquisition, she should be given a tape recorder and some field technique training (especially in question asking strategies) and turned loose to get speech samples of real children. Certain techniques can be borrowed from existing materials (word games, narration, oral reading, sentence imitation, and other communicative routines), but the major value of such work lies in the individual future teacher-pupil contact as much as in the ultimate analysis of the language data. It is difficult to justify keeping future teachers away from real children, at least on the basis of anything we have taught them in the past. Much of what we teach them about the history and structure of American education could be happily eliminated or deferred; and most of the necessary content in math, social studies, and science could be condensed and focused in much the manner that I have outlined here for the language arts and reading. If the general education lockstep could be subverted, it would be possible to place future teachers in the classroom by the end of two or, at most, two and one-half years of college. As those of us who have returned to college courses after some teaching experience will attest, it takes some reality for the abstractions of college to become meaningful. The point of these suggestions, though limited primarily to the affect which the study of language can have on the training of teachers, is that special methods and techniques of instruction are fairly meaningless until the student has some notion of what in the world they might mean. The rest of the students' courses—whether they focus on methods, history, visual aids, philosophy, psychology, or children's literature—could be deferred until after the student has spent a school year in the classroom. But if the student gets into the classroom first for a reasonable length of time, he will have reason to suspect that these courses may be in some way useful. If not, he may reject them with no loss of confidence caused by the insecurity of never having taught.

One further benefit will surely accrue to the reading teacher who has developed competencies in the language aspects of her task: she will be able to keep her tasks separated. One important aspect of teaching reading is that the teacher know that learning to read is not the same as learning standard English. These tasks have been strangely confused in the past to the extent that a child who reads "She go to the store" for "She goes to the store" is said to have a reading problem. In most cases this reading can be construed as evidence that the child has indeed read very well—so well, in fact, that he did what good readers presumably are expected to do: put the information found on the printed page into his own language system.

## *THE TEACHER*

Reading teachers claim that learning to read is one of the most crucial things that happens to a child in his early schooling, yet we appear to be willing to risk its development on teachers who are prepared, on the average, with only one undergraduate course in the subject which rarely if ever gets at reading for what it is—the processing of language phenomena (like the nuclear fission isotope workers, we seem to be saying "no experience necessary"). Teachers are seldom trained to diagnose the linguistic aspects of reading errors—or even to distinguish errors or miscues in decoding from the oral rendering of one's native dialect. Even worse, with respect to language, teachers are often given a collection of half truths or outright lies as principles upon which to teach reading to our children. They are given standardized tests to worry about as though a national norm could somehow be determined or, if it could be, that it would be desirable. They are given few reasonable or fair methods of measuring comprehension, and the farther the child is from the mythical mid-America that the norms are presumably keyed on, the more unfair and unreasonable the tests become. In lieu of description of the actual processes involved in acquiring and developing reading skills, teachers are given bits and pieces of pop-psychology so that in parent-teacher conferences they can appear to know something even when they don't. Thus, phrases like "Chris lacks proper motor skill coordination" can be coupled with the child's other undesirable traits, such as his dirty fingernails and his careless grammar to explain why he is not up to his teacher's somewhat sterile standards.

During the past two years, I have witnessed a number of such degrading incidents in which children have been diagnosed by their teachers in the following ways:

1. "Deeply disturbed"
2. "On the verge of a serious breakdown"
3. "Lacking in motor skill coordination"
4. "Borderline dyslexic"

As it turns out, these well-meaning but unlicensed practitioners of psychiatry and neurology were forced into these untenable statements by the improprieties of their training. Imagine their plight something like the following: On the basis of their one undergraduate reading course, they simply do not have the diagnostic ability to discourse with reasonably intelligent middle-class parents about the technicalities of students' reading problems. This condition stems primarily from the fact that available research in reading has not yet adequately identified the stages in the acquisition of reading skills. We know that children can learn to read using letter-sound decoding somehow and that the whole-word method appears to be another avenue. But after that, the whole thing breaks down rather badly, nor has reading research turned up viable methods of measuring the acquisition of these skills. (How could it when it hasn't identified what the skills are or the sequences in which they are learned?) Thus, the lone undergraduate reading course is not apt to have provided the teacher with the necessary equipment to do her job. So, how can she face the parents whose child she feels is not doing well? She resorts to pop-psych answers, of course. What our neighborhood teachers, who made these diagnoses, didn't know was that the neighborhood children they were pop-psyching were children of a physician who teaches at the local medical school whose medical opinion and analysis is at serious odds with them in medical matters.

But even if the pop-psych approach is not used, the teacher isn't left with much to go on. These same neighborhood children were also, over a period of years, diagnosed as:

1. "Lacking in decoding skills"
2. "Failing to discriminate between sounds"
3. "Lacking ability to read aloud adequately"
4. "Failing to comprehend the printed page"

As it turns out, another neighborhood parent is a reading specialist. His private diagnosis of each child failed to turn up any evidence whatsoever of the faults which the teachers seemed to feel were there. The major problems faced by these children were that they had dirty fingernails and that the school teaching establishment expects a teacher to find ways of identifying a lower reading group even if the kids read well.

Perhaps the trouble stems from having parent-teacher conferences at all. To be sure, this paper is not meant to be another parental tirade against mindless teaching. On the contrary, it is intended to present the teacher's plight in a sympathetic view. The fact is that until this writing the frantic pop-psychs and pseudo-analyses of our neighborhood children have not been the subject of controversy or discussion at our school. The school is doing a reasonable job, all things considered, and it deserves a better fate than it could easily be given. But one would hope that a more sensible rapprochement could be made. Teachers simply must be given the facts of the nature of language so that their diagnoses can be reasonably accurate. Reading is a kind of written down language. The fact that it is on paper does not detract from this truth. When a child learns to read, he calls on a large number of things he already knows about the language he speaks in order to make sense out of the marks that represent his language on paper. These things include pronunciation, vocabulary, grammar, and syntax.

What then do we say about a school child who can't read? Maybe we say other children have learned how to read in our public schools, so let this child learn the same way. Maybe we tell him to shape up or ship out; be like us, then you can learn. If we say this, we put the pressure on the child.

Maybe our message is to the teachers, giving them some handles for diagnosing the language dimensions of reading. Maybe we can help them learn about child language, about language variation, about language acquisition. Maybe we can help them learn to distinguish between a reading problem and a problem in speaking standard English. If we are to do all of this, we must reorder our priorities in teacher training, placing future teachers in the schools earlier and longer, placing language issues at the center rather than the periphery of the program, and rethinking the nature of professional education requirements. Such a strategy puts the pressure on the teacher and the teacher training institutions.

On the other hand, maybe you say all these things to materials developers. Let them experiment with the hypotheses currently available, but also let them give evidence that their ultimate product really works. This procedure puts the pressure not on the child and not quite so much on the teacher but on the publisher. Logic tells that since there are fewer publishers than teachers, perhaps our first strategy for bringing reading to all children should be through materials development. But the question sounds strangely like "When are you going to stop beating your wife?" We don't choose between being a good teacher and being a good scholar. We do both. We don't choose between being a good father and being a good husband. We do both. There is no choice between actively overhauling teaching training programs and developing materials. We obviously must do both if we are in any way serious about reading for all children.

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# SHOULD DIALECTICAL DIFFERENCES BE CONSIDERED IN READING INSTRUCTION?

*Addie S. Mitchell*
*Morehouse College*

When Rystrom (*6*) reported his research relating to dialect and reading, he made certain statements which need reiteration. Deeply embedded in the statement of the problem, Rystrom points out that there is no inherent relationship between skin color and dialect. (Said another way: dialect is colorblind!) Although much of the research, including that conducted by Rystrom deals with the dialect of selected black children, let it be understood, blackness has no monopoly on dialect. There are white *dialects*—not *a* white dialect. There are Negro *dialects*—not *a* Negro dialect. It is probably natural that the various researchers turned to a study of Negro dialects as they sought to determine whether a relationship might exist between dialectal differences and reading. The educational problems of Negro children in large cities must be considered most pressing, followed by the problems of Puerto Rican and Mexican children from Spanish speaking homes and white children from Appalachian backgrounds and other underprivileged areas (*3*). The reading problems of some of these children, like their dialects, are of great concern in educational circles.

Rystrom further points out that some Negroes speak a dialect which is nondistinctive from white speech, while at the same time noting that the term "white speech" is a convenient fiction used in his paper to include all of the regional and social dialects which are commonly spoken by Whites. This kind of explanation is helpful since one could hardly help noticing the extreme differences which exist between and among the dialects of the Pennsylvania German, the Scandinavia Minnesotan, the Dutch New Yorker, the Appalachian White, the South Carolina Geechee, and the South Georgia White. It is often just as difficult for one group of whites, using their dialects, to understand another as it is for dialects to be understood across racial lines. "White speech" is not only a convenient fiction but also may be a misnomer or a myth.

Dialect means a variety of a language spoken by a distinct group of people in a definite place through time. It is not something which one picks up and casts off at will, but rather it is a part of people united into a speech community—sharing interests, values, ambitions, and communication. It varies not only in pronunciation but in vocabulary, grammar, and idiom. A *peanut* to one person might be a *goober* or a *ground pea* to another. While one person might say "He is at the store," someone else might say "He is to the store," "He has gone to the store," or "He went tuh di sto." We all mean the same thing; our dialects are just different. Dialect is not something which we can change as we change clothes, either by imitation or fashion; it is part of the geographic, social, and cultural background out of which and through which the individual develops. Try as we may to mask our language with intonations, phrases, and speech patterns which we garner from others as we travel, try as we may to take on what we consider to be more prestigious speech acquired through the process of education and acculturation, there remain those vestiges of regional identification in the individual's speech system from which he cannot successfully extricate himself.

In addition to the geographic impact on dialects in the United States, linguistic geographers have uncovered significant sociological relationships between education and dialect. Within each of three regions considered to be three main dialect areas of the United States—Northern, Midland, and Southern—stretching east and west, it was found that when elementary pupils, high school graduates, college graduates, and adults with less than a high school education were interviewed, the language of each group, according to educational level, was highly distinctive within each region. Those who were of the same or nearly the same educational levels, spoke more nearly the same dialects. There is historical evidence, furthermore, that language socially acquired and socially transmitted is *not* the product of some peculiar bone structure, facial, vocal, or other physiological characteristic. As McDavid (*4*) points out, dialect is not a derogatory term but a descriptive one; it is equally applicable to the Gullah of Edisto Island and to the quaint and curious subspecies of cultivated Eastern New England speech. There is no single regional variety of speech that has established itself as prestigious and, therefore, to be imitated in speaking or reading more than all others. In Italy, the educated speech of Florence has been preferred since the fourteenth century; in France the language of Paris ranks highest; in England the upper-class speech of London, now disguised as Received Pronunciation, has been accepted as standard pronunciation. But in the United States, the educated speech of Boston, New York, Atlanta, Chicago, Seattle, and San Francisco stands on a par with that of Richmond, Atlantic City, Charleston, St. Louis, or any other cultural center. The time is largely gone when a teacher attempts to impose on his students a dialect from another region.

## *CONCLUSIONS AND EVALUATION*

1. There is nothing in the reported research at present to support the notion that low academic achievement via reading is either occasioned by or not affected by one or more dialects brought into the classroom by pupils and/or their teachers. Every child who faces reading for the first time encounters a new variety of language. In the first place, his familiarity is with "speech," and the printed matter which he must face is not exactly his speech "written down." He must cope with a textbook language which is at variance not only with his own language but that of his teacher, that of his classmates, and often that of the nation.

2. The complex urban dialect situation, which brings to our inner city and small town classroom several social dialects, challenges the teacher of reading to distinguish between "reading errors" and dialectal phenomena which prevent certain children from differentiating between *cold* and *coal*, *on* and *own*, *flow* and *floor*, *can* and *kin*, *doing* and *during*, and *morning* and *moaning*. A basic distinction must be made between differences in pronunciation and errors in reading.

3. Teachers themselves are migrating all over the nation, and as they move, they carry with them, as do their pupils, the dialect of the region from which they come. Often what the teacher thinks he is saying is not, in fact, what his equally educated colleagues from another part of the country hear. In short, pupils are as much confused and frustrated by the dialect of their teacher in the self-contained classroom or dialects of several teachers in departmentalized situations as teachers are by the varieties of speech brought in by the 35 or 40 pupils.

4. Teachers need to develop techniques for checking reading comprehension to determine whether so-called "reading errors" occasioned by dialectal differences rendered in oral reading can be safely ignored. Emphasis on silent reading rather than on oral reading as a method of reading instruction, at the earliest possible level beyond first grade or whenever the fundamentals of reading are acquired, is highly recommended. One of the reasons that dialectal problems reflect themselves in the reading of pupils is the fact that "roundrobin" reading yet lives. Classroom teachers are attempting to have pupils "cover" the book by reading it aloud.

This kind of reading instruction is out of date, and it should be discontinued. It was found through research more than fifty years ago that silent reading is more economical, that it yields a higher level of comprehension, and that it is easier to perform. Yet, teachers hold on desperately to oral reading as the sole means of evaluating reading performance in the classroom and in teaching reading, in some instances. These same teachers, no doubt, look askance at pupils who perform poorly on standardized tests which require skills never practiced. The silent reading skills of reading for specific purposes, adjusting rate to purpose and difficulty of material, following directions, skimming, utilizing context to arrive at meaning, and the myriad of other skills which should become a part of reading instruction so that reading becomes a thinking process rather than a word-calling process divorced from meaningful application.

5. It is important and even critical in considering the problems of divergent speakers to avoid labeling their language as bad, incorrect, sloppy, or substandard. Not only does this name calling run the risk of damaging the pupils' self image but often it thwarts the desire to read or speak since to do either is to lay oneself bare to the criticism and ridicule of peers and teachers.

## *IMPLICATIONS*

What are the implications of the finding that large numbers of first grade children enter school with characteristic forms of language that differ substantially from language systems used by other pupils? Perhaps the most outstanding implications rest in the need for carefully designed and systematically executed action research to determine if, in fact, dialectal differences can be considered as one of several inhibiting factors contributing to reading disabilities. Whether the language differences of black pupils are sufficient to account for differential learning between black and white pupils has not been determined. This point remains for future research to establish.

Several alternatives have been set forth in the literature as possible approaches for eliminating certain negative effects which severe dialectal differences might have on the acquisition of reading skills at very early levels. The advantages and disadvantages of each alternative as set forth by Wolfram (7), Goodman (2), and others have implications for further study and research. Realizing that there is no panacea for the solution of the wide variety of difficulties faced in our school systems in connection with reading and bearing in mind that no single factor but rather a constellation of causes has been found to be operative in the case of any given reading disability, five alternatives might be weighed and considered with a view toward the scientific study of the effects of dialectal differences on reading achievement in the lower grades.

*Alternative 1* It has been suggested in the literature that "standard" English should be taught prior to the teaching of reading. Since there is no "standard" English, the effects of teaching "textbook" language in kindergarten or earlier might be studies to determine whether the readings skills of large numbers of divergent speakers might be facilitated by adding to their present dialect the language of the textbook.

*Alternative 2* Permit children and even encourage them to read as they speak, thus accepting dialect renderings of printed matter as correct reading if it can be ascertained that the meaning is clear to the pupil (*7*).

*Alternative 3* Develop dialect readers in which the vernacular of the children is used at beginning levels of reading, making the transition gradually to regular textbook language. Incidentally, certain versions of the alternative have been tried in the experimental edition of dialect readers by Baratz and Stewart (*1*) deemed to be dialect readers for black children. The problem was, however, that the authors had trouble finding schools and communities that would agree to try such readers out, even on a small experimental basis. Many principals and teachers and parents and community leaders resent such readers and view them as an attempt to perpetuate dialectal differences and reinforce a language pattern which research has shown might otherwise be neutralized or homogenized through time and exposure. While it has been substantiated that there are linguistic differences in the patterns of speech of large groups of people coming from different regions of this country, it is very doubtful that printed readers can capture either the orthography or the phonics of these differences. The result of such readers already attempted has not been an encouraging product or had a favorable reception.

*Alternative 4* Ignore dialectical differences and focus attention on the essentials of the reading process in all situations where pupils understand the teacher's language and vice versa. In cases where communication barriers are so great between pupil and teacher as to make the understanding of the spoken word impossible, pupils and teachers should be exchanged in order that communication may be facilitated. McDavid (*5*) points out that the differences in pronunciation between American dialects seldom impede free communication, and perhaps less today than ever. The railroad, the automobile, the movie, and above all radio and television have prompted uniformity in even the most remote backwaters of the United States (*5*). We have considerable reason to respect this statement by McDavid, for there appear to be structural differences and variant pronunciations in any of several dialects which do not impair understanding or thwart communication. Thus, such tendencies may be ignored without providing what the teacher considers to be "correction" of the pupil's pronunciation when, in fact, the meaning is clear for the pupil and teacher but the dialectal rendering is different from that of the teacher: do/dew, doing/during, cot/caught, and morning/mourning/moaning. Variant pronunciations of *coop, aunt, greasy, on,* and *fog* would also fall into this category.

*Alternative* 5 Rely heavily on the language experience approach to reading instruction in which pupils automatically utilize the language with which they are familiar rather than a textbook language which, in most instances, is alien to both pupil and teacher.

The question of whether dialectal differences affect reading achievement at lower levels is a fertile field for scientific investigation. There is much to be learned regarding what happens when the classroom teacher, speaking his natural dialect, attempts to teach reading to pupils who speak several dialects. As Goodman (*2*) notes, "Pity the poor child who finds himself transplanted to a new and strange environment and then must handle the additional complication of learning to talk all over again. . . . His best defense is to be silent."

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# THE ORAL MODEL AS A STRATEGY IN DEVELOPMENTAL READING INSTRUCTION

*Leif Fearn*
*San Diego State College*

Modeling is a teaching strategy employed almost universally in the learning process. A form of modeling, labeled "read along" or "echo reading", has been employed by classroom teachers in their reading instruction. The literature, however, reflects no specific data relative to the developmental value of modeling in reading whether the model is that of commercial companies or teacher-made devices.

There are, however, substantial data showing the existence of learner-initiated reading models. McGuigan, Keller, and Stanton (*7*) reported that the learner established various forms of accompaniment for his silent reading behavior. Buswell (*1*) identified subvocalization as a learner-established accompaniment to silent reading. Faagborg-Anderson (*3*), through the analysis of recordings from electrode connections to the larynx, showed that there are apparent forms of accompaniment to the silent reading of highly sophisticated readers which cannot be detected by the casual observer. Hardyck and Petrinovich (*4*) recognized the existence of subvocal speech, a learner-established accompaniment to silent reading. A summary of the research in this area shows the existence of accompaniment to silent reading at all levels of silent reading competence ranging from overt physical movement accompanied by oral behavior in the reading of the rudimentary beginner to the covert behavior manifest in respiratory accompaniment of the most advanced and sophisticated reader.

The data run contrary to what are at least assumed goals in the developmental reading program. The teacher assumes that the ultimate goal of the reading program will be realized in readers who consume written language in complete silence and in the absence of all accompaniment. This is a process of perception, cognition, and processing all occurring in an overt and covert behavioral vacuum. The data show that this simply does not happen.

If we can accept the validity and reliability of the available data, it is legitimate to assume that the learner is going to establish a form of overt or covert accompaniment to the silent reading process. There is merit, therefore, in providing a model for that accompaniment in the developmental reading program. There are research precedents for modeling in learning, short-term recall, and recognition. Rosenbaum (*8*) presented data on the value of accompanying verbalization on the retention of learned stimuli. Kurtz and Hovland (*6*) studied recognition and recall under conditions of verbal accompaniment to the learning process. Jeffrey (*5*) compared verbal and nonverbal responses in learning specific tasks. Candor (*2*) working with preschool children showed the value of verbal accompaniment to physical response in learning associations. These and other studies have shown that oral accompaniment to the learning act produces increased retention and availability of material for recognition and recall.

It is apparent from the literature that it is legitimate to propose oral accompaniment as an element in the development reading program. The research, however, does not specifically substantiate such a proposal since it reflects the value of the oral model only in terms of very specific and very short-term criteria.

## *PURPOSE*

It was the objective of this study to collect data on the efficacy of auditory accompaniment, termed, oral model, in the developmental reading process. The statistical hypotheses were designed to get at the effects of an oral model on various manifestations of reading behavior among fourth grade pupils.

H

1. The provision of an oral model will not significantly affect the a) reading vocabulary, b) reading comprehension, or c) total reading achievement of selected fourth graders.

H

2. The relative efforts of an oral model upon vocabulary, comprehension, and total reading will not be significantly influenced by the position of a pupil in a rank order of pretest achievement scores.

## *PROCEDURES*

Four classes of fourth graders were selected by an urban school district as a sample. These classes were in two different schools, both essentially of a middle socioeconomic status. Through a chance procedure two classes were identified for treatment and two for control. For the purpose of the study each school had a treatment class (N=28) and a control class (N=28) for a total sample of 112. A pretest, California Reading Test, Form W, was administered and a t-test showing nonsignificance established initial group equivalence.

In order to identify a sample for use in dealing with the second statistical hypothesis a rank order of pretest scores for both treatment and control groups was made. The top and bottom third of each rank order of scores was isolated as the sample to test the hypothesis concerning the effect of the oral model upon pupils at extreme stations in a rank order.

For the twelve week treatment period each of the treatment and control classes was exposed to the reading instructional program characteristic of the urban district utilized for the study. This program utilized a variety of basal and supplementary reading materials treated passage by passage in reading ability groups in terms of independent silent reading; oral reading for word attack, comprehension, and interpretation; and independent written activity, in essentially that order. Under such a format the pupils move through from three to four passages per week in each ability group.

The only adjustment in the above instructional format was the use of an oral model in the treatment classes. The oral model was a taped narration of the reading material to which the pupils were to be exposed. The oral model was developed by three women doing graduate work in education. Under the direction of the investigator the women read each passage at their natural oral reading speed and without dramatic input onto 3 inch magnetic tape reels. Each tape was meticulously reviewed for mistakes in order to insure a perfect narration of each passage. The oral models were used prior to the initial exposure of each ability group to a passage. No overt control was utilized to insure that the pupils followed along in their books. Treatment lasted approximately ten minutes per day and upon the completion of each recording the treatment pupils moved into the standard instructional format characteristic of the district.

At the end of the twelve week treatment period Form X of the California Reading Test was administered as a posttest. A one-tailed analysis of variance was used as the inferential statistic due to the established equivalence of the groups.

### *FINDINGS*

Descriptive statistics for the treatment and control groups are reflected in Tables 1 and 2. Table 3 shows F rations in excess of

TABLE 1
DESCRIPTIVE STATISTICS FOR TREATMENT CLASSES (N = 56)

| Test | Pretest | Posttest | Gain |
|---|---|---|---|
| Vocabulary | $\overline{X} = 33.1964$ | 37.6785 | 4.4821 |
| | $S = 8.3392$ | 6.2000 | 5.2223 |
| Comprehension | $\overline{X} = 43.3392$ | 48.2500 | 4.9108 |
| | $S = 10.2395$ | 10.4660 | 6.9630 |
| Total Reading | $\overline{X} = 76.5357$ | 85.9285 | 9.3928 |
| | $S = 8.3392$ | 15.2683 | 9.1327 |

TABLE 2
DESCRIPTIVE STATISTICS FOR CONTROL CLASSES (N = 56)

| Test | Pretest | Posttest | Gain |
|---|---|---|---|
| Vocabulary | $\overline{X} = 32.3750$ | 35.0357 | 2.6607 |
| | $S = 7.5668$ | 7.3755 | 5.3945 |
| Comprehension | $\overline{X} = 42.4642$ | 43.9107 | 1.4465 |
| | $S = 12.6232$ | 14.5055 | 8.4722 |
| Total Reading | $\overline{X} = 74.8392$ | 78.9464 | 4.1072 |
| | $S = 18.7508$ | 20.8862 | 11.1758 |

TABLE 3
ANALYSIS OF VARIANCE: POSTTEST READING VOCABULARY,
COMPREHENSION, AND TOTAL READING

| Source | df | MS | F |
|---|---|---|---|
| Vocabulary | | | |
| Between | 1 | 195.57 | 4.2131 |
| Within | 110 | 46.42 | |
| Total | 111 | | |
| Comprehension | | | |
| Between | 1 | 527.22 | 3.29 |
| Within | 110 | 159.97 | |
| Total | 111 | | |
| Total Reading | | | |
| Between | 1 | 1365 | 4.0786 |
| Within | 110 | 334.68 | |
| Total | 111 | | |
| | F.95 | (1,110) = 3.94 | |

.05 on the variables of vocabulary and total reading, rejecting the first hypothesis on those two variables.

Table 4 reveals that the data fails to reject the second hypothesis for pupils who score in the upper ranges of a rank order of achievement test scores.

Table 5 shows the F-ratios on the effect of the oral model for pupils at the lower end of a rank order of scores. It shows rejec-

TABLE 4
ANALYSIS OF VARIANCE: POSTTEST DATA FOR UPPER TREATMENT AND CONTROL GROUPS

| Source | df | MS | F |
|---|---|---|---|
| Vocabulary | | | |
| Between | 1 | 25.0000 | 2.0737 |
| Within | 34 | 12.0556 | |
| Total | 35 | | |
| Comprehension | | | |
| Between | 1 | 1.3611 | .0328 |
| Within | 34 | 41.5180 | |
| Total | 35 | | |
| Total Reading | | | |
| Between | 1 | 4.0000 | .0522 |
| Within | 34 | 76.5556 | |
| Total | 35 | | |

F.95 (1,34) = 4.14

TABLE 5
ANALYSIS OF VARIANCE: POSTTEST DATA FOR LOWER TREATMENT AND CONTROL GROUPS

| Source | df | MS | F |
|---|---|---|---|
| Vocabulary | | | |
| Between | 1 | 51.3611 | 1.6125 |
| Within | 34 | 31.8513 | |
| Total | 35 | | |
| Comprehension | | | |
| Between | 1 | 765.4444 | 10.9867 |
| Within | 34 | 69.6699 | |
| Total | 35 | | |
| Total Reading | | | |
| Between | 1 | 1431.3611 | 11.2248 |
| Within | 34 | 127.5180 | |
| Total | 35 | | |

F.95 (1,34) = 4.14 F.99 (1,34) = 7.46

tion of the second hypothesis on the variable of comprehension and total reading at the lower end of the achievement test rank order.

## *SUMMARY OF FINDINGS*

1. The oral model is effective as an instructional strategy on variables of vocabulary and total reading on a whole class basis.
2. The oral model makes little or no difference to fourth graders who score at the upper extreme of an achievement test.

3. The oral model is effective as an instructional strategy on variables of comprehension and total reading for pupils who score at the lower extreme of an achievement test.

### *DISCUSSION*

This study validates the use of an oral model as an instructional strategy in the developmental reading program. This is not, however, meant to be an encompassing endorsement of the specific oral model measured here. The study was not planned or conducted to be sufficiently discriminating so as to validate a specific form of model, e.g. male vs. female, dramatic vs. straight narration, and inclusion of sound effects. These are legitimate spheres of additional study, some of which are already in conduct. Neither is this study presented to generalize far beyond the fourth grade, although, from the data it seems legitimate to generalize to poorer readers, lower grades, and denied pupils. Legitimacy, however, does not necessarily mean research precedent.

The study suggests several conclusions:

1. Pupils tending toward the lower end of a rank order of achievement test scores can benefit greatly from being provided an accurate oral model of the material which they are reading.
2. The oral model has implications in terms of Reading Vocabulary, Reading Comprehension, and Total Reading Behavior.
3. The study casts a dark shadow upon the classroom practice of causing pupils in the learning process to model after other pupils who manifest various inaccuracies. The data suggests that pupils should hear a narrated model which is accurate in terms of word recognition and the sound of the sentence.
4. There is good reason to suggest from this study that before pupils read orally to other pupils the reader should have mastered the passage. This is not to suggest that oral reading is not a legitimate diagnostic tool; rather, that diagnosis on the basis of cold oral reading has no place in the context of other learners who could model therefrom.

Teachers are encouraged to experiment further with the notion of an oral model in the developmental reading program. The investigator especially encourages teachers to avoid oral reading which presents a model reflecting an inaccurate or inappropriate model of language.

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# LINGUISTIC SKILLS AND READING COMPREHENSION

*Herbert D. Simons*
*University of California at Berkeley*

The workings of the mind while comprehending written matter are a great mystery despite the voluminous research on the subject conducted in the past half century. As a result, when children today are taught to understand what they read, the instructional procedures and materials used are based more on the intuitions and accumulated experience of reading teachers than on research evidence.

All the research has not shed much light on reading comprehension, mainly because the comprehension skills upon which the research has been based have tended to be global and vague. Consequently, a good description of the comprehension process has not been provided. This lack of a good description of the comprehension process has hindered researchers in their attempts to focus upon specific aspects of it.

## *LINGUISTIC THEORY AS A NEW PERSPECTIVE ON READING COMPREHENSION*

The major reason for the inability of researchers to focus on specific aspects of comprehension has been the lack of a theory of language. However, a recent development in linguistic theory promises to provide a theory of language which could be a basis for fruitful comprehension research. This recent development is transformational grammar as proposed by Chomsky (*1*, *2*). Transformational grammar is a theory of the inherent structure of natural language. It provides a description of the structural relations within sentences.

Reading comprehension involves understanding sentences, and understanding sentences involves using the information about the structural relations of sentences as described by transformational grammar. The structural relations necessary for sentence comprehension are not only given in the word order or form classes of words, i.e., the surface structure, but also in the underlying or deep structure of sentences. And sentence comprehension cannot take place without the recovery of these underlying relationships.

For example, in order to comprehend "John is eager to please" and "John is easy to please," a reader must at least recover the underlying structural relations of these sentences. He must know that in the former John is the one who is doing the pleasing and the person pleased is unspecified, while in the latter it is John who is pleased and the one who is doing the pleasing is unspecified. This information is described by the deep structure in linguistic theory.

Thus, a necessary condition for sentence comprehension, which is a prerequisite for the comprehension of larger units of discourse, is the recovery of deep structure (5). Therefore, one way for reading researchers to begin looking more closely at reading comprehension is to examine children's abilities to recover the deep structure of sentences.

### *HYPOTHESIS AND MEASUREMENT OF VARIABLES*

The hypothesis of this study concerns the relationship between children's skill at recovering the deep structure and their reading comprehension skill. This hypothesis is as follows:

> Children's skill at recovering the deep structure of sentences is positively related to reading comprehension skill.

The independent variable for this hypothesis is skill at recovering the deep structure of sentences and is measured by a 25-item test developed by the author. The items on this test require Ss to choose the one sentence out of three that is not a paraphrase of the other two. Some examples follow:

1. a. The boy gave the book to the girl.
   b. The book was given the girl by the boy.
   *c. The book was given to the boy by the girl.
2. *a. What the boy would like is for the girl to leave.
   b. For the boy to leave is what the girl would like.
   c. What the girl would like is for the boy to leave.
3. a. He painted the red house.
   *b. He painted the house red.
   c. He painted the house that was red.
4. a. The girl asked the boy when to leave.
   b. The girl asked the boy when she should leave.
   *c. The girl asked the boy when he should leave.

The asterisk indicates the sentence with a deep structure different from the other two sentences. This test will henceforth be called the Deep Structure Recovery Test (DSRT).

In each item there are two sentences which have the same deep structure and the same meaning. These two sentences have different surface structures due to the application of one or more extra transformations to one of them. The third sentence has a surface structure that is the same or similar to one of the other two sentences, but it has a different deep structure and, consequently, a different meaning from the other two sentences. In order to choose the right answer an S must recover the deep structure of at least two out of the three sentences.

The dependent variable, reading comprehension, is measured by a cloze test composed of three 150-word passages selected from a set of passages calibrated by Miller and Coleman (*4*). The passages come from the *Standard Tests Lessons in Reading* (*3*) and range from 6.0 to 6.7 in grade level as determined by the 70 percent comprehension score. All three passages were prepared with every fifth word deleted.

The control variables were 1) word knowledge as measured by the Word Knowledge subtest of the Metropolitan Achievement Test (MAT), 2) word recognition as measured by the Word Discrimination subtest of the MAT, and 3) intelligence (IQ) as measured by Lorge-Thorndike Intelligence Tests, Form A, Level 3, Verbal Battery.

## *SAMPLE AND TESTING PROCEDURES*

The original sample for the study consisted of 110 fifth grade students in five classrooms in two schools in a suburban community near Boston, Massachusetts. After eliminating those Ss who had missing data and who had word recognition problems, the sample size was reduced to 87.

TABLE 1

BASIC STATISTICS OF THE SAMPLE

| Variable | $\overline{X}$ | Median | S.D. | Range |
|---|---|---|---|---|
| DSRT | 18.58 | 20.00 | 4.26 | 3-25 |
| Cloze Test (T score) | 150.00 | 150.85 | 24.71 | 87-205 |
| IQ | 117.01 | 114.00 | 12.97 | 101-150 |
| MAT[a] | | | | |
| Word Know. | 6.40 | 6.10 | 1.01 | 2.90-8.70 |
| Word Disc. | 5.50 | 5.50 | 0.88 | 2.80-6.50 |

[a] Ss were tested in the second month of the fifth grade in classroom groups whose sizes ranged from 15 to 32.

## *RESULTS*

The hypothesis was tested by a correlational and regression analysis. The correlation between the DSRT and the cloze text is .732 which is significant and quite large, with more than 50 percent of the variance accounted for by the DSRT. When this correlation is attenuated to correct for the unreliability of the tests, the correlation increases to .864. Thus, if the tests were perfectly reliable, the DSRT would account for 74 percent of the variance in the cloze test.

The results of the regression analysis are presented in Table 2. Table 2 shows that the DSRT is the only variable in the regression that has any unique variance worth discussing. And the amount of the unique variance (21.3 percent) is very substantial. The analysis of the unique plus common variance shows that the DSRT accounts for 40.6 percent of the explained variance which is quite substantial. This percentage is three times as great as the next highest variable which contributes 13.2 percent and over five times as great as the next highest variable, Word Discrimination (7.3 percent). IQ makes almost no contribution at all.

## *CONCLUSIONS AND IMPLICATIONS*

The evidence from the simple correlation overwhelmingly confirms the hypothesis. In addition, the regression analysis suggests that the DSRT is a very important factor in comprehension, a factor not accounted for by other variables such as word knowledge skill, word recognition skill, and IQ.

The result of this study could serve as a point of departure for further research into the reading comprehension process; this in turn could lead to new instructional methods. Research into Ss' ability to recover deep structure should take the following direction.

1. The present study should be replicated to determine if the results can be generalized beyond the sample studied.
2. The developmental aspects of Ss' ability to recover deep structure should be investigated to determine how this skill is acquired.
3. Research should be undertaken to investigate the strategies that Ss use in recovering the deep structure. These strategies will probably come from the work in psycholinguistics. This research should take the form of studies aimed at determining whether differences in children's skills in utilizing various strategies differentiate good and poor readers.

TABLE 2

Regression Analysis: dsrt, Word Knowledge, Word Discrimination, iq with Cloze Test (N = 87)

| Variable | (1) O-order r | (2) Beta Weight | % Unique + Proportion Common (1) × (2) | % Unique Variance | Mult R | % Variance Explained |
|---|---|---|---|---|---|---|
| DSRT | .732 | .5547 | 40.6 | 21.3 | .785 | 61.6 |
| Word Knowledge | .621 | .2118 | 13.2 | 01.4 | | |
| Word Discrimination | .542 | .1351 | 07.3 | 00.8 | | |
| IQ | .484 | .0097 | 00.5 | 00.0 | | |
| | | | Total Unique | 23.5 | % Unexplained Variance | 38.4 |
| | | | Common Variance | 38.1 | | |

As far as the instructional implications are concerned, increased knowledge of the strategies Ss use in recovering deep structure could lead to the development of diagnostic tests to identify children who are having difficulty in recovering deep structure and to pinpoint the deficient aspect of the deep structure recovery process. Instructional procedures and materials could then be developed to remedy the particular problems identified by the diagnostic tests.

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# COGNITION IN READING: MODES AND STRATEGIES

*William S. Palmer*
*University of Delaware*

Cognition, in a most general sense of the word, concerns the recognition of knowledge and the development of intellectual abilities and skills. The purpose of this paper is to pinpoint some modes and strategies for improved cognition in reading. I should like to propose a five-pronged approach to the topic.

Briefly, the five points are as follows: 1) Cognitive skills in reading can be arranged in a hierarchy. 2) To teach those students at or near the apex of the hierarchy, teachers must involve the emotions of the student and parts of his personality of which he may not be fully aware. 3) Teachers can do so by building upon natural responses the student makes in reading encounters, but teachers must lead the student toward sophistication and maturity in reasoning. 4) Teacher-student interaction is needed for developing and refining of student responses to reading, but such interaction must be different from the usual cold-blooded analysis. 5) I stress that I am not talking about an isolated mechanical skill that can be achieved at so much per pupil. Rather, I am talking about a vital, vibrant, and vigorous interaction between teachers and students. Let us consider these five points in more detail.

## *COGNITIVE SKILLS CAN BE ARRANGED IN A HIERARCHY*

Bloom (*1*), working on the assumption that a particular simple behavior may become integrated with other equally simple behaviors to form one that is more complex, attempts to arrange cognitive educational behaviors from simple to complex. His major classes are placed somewhat in hierarchical order, his reason being that the objectives in one class are likely to build upon the behaviors found in preceding classes. The purpose of Bloom's taxonomy is to order phenomena in a way that reveals some of their essential properties—as well as their interrelationships.

Over the years, educators such as David Russell have noted that comprehension in reading takes place at different levels of cognition.

In more recent times, Herber (*4*) has developed an instructional framework, delineating levels of comprehension that build one upon the other and in a similar fashion to Bloom's hierarchical classes. Herber identifies three levels of comprehension and defines them as follows:

*Literal Level.* At the literal level, the reader produces knowledge of what the author said. Students who function at his level decode words, determine what each means in the given context, and recognize that there is some relationship among the words.

*Interpretative Level.* At the interpretative level, the reader applies what the author said in order to derive meaning from his statement. The reader looks for relationships among statements within the material he has read. From these intrinsic relationships he derives various meanings.

*Applied Level.* At the applied level, the reader takes the product of the literal—what the author has said—and the interpretative—what the author meant by what he said—and applies it in some pragmatic or theoretical exercise.

As a result of his instructional framework, Herber suggests that teachers analyze content, in part, through the preparation of study guides, applying three levels of comprehension to the material to be read. Students read, then, to find out "what the author said," "what the author meant," and "how to use the ideas." But Herber's instructional framework, if not used judiciously, can produce knowledge "about" rather than a capacity to read books and respond to them. What one has to ask is this: Do these levels of comprehension about which Herber speaks enable the student to gain more from his reading than before? And how? Such study guides may enable the teacher to use them as informal inventory checks for range of cognition in his students. But Herber's "prescriptive" instructional framework need not be a deliberate attempt to teach cognitive processes directly.

*To teach those students at or near the apex of the hierarchy in the cognitive domain, teachers must involve the emotions of the student and parts of his personality of which he may not be fully aware.* Reading, after all, is a way of happening. In reading, as in most learning tasks, the student is indeed confronted with phenomena that he must put together. And the reader has more than one level of phenomena to handle—the letter symbols and the concepts behind the symbols. But teachers must clarify the reading experience with a distinction. When students read, they read differently at times, for they read for many purposes. And when they read for more practical purposes, they read generally for information, ideas, or facts. They also read beyond exposition, even when reading in the content areas; they can also read for the literary experience. Among an array of characters and situations, students discover those elements into which they can project their own emotions and personalities, finding meaning in what otherwise would be mere facts. But what the student contributes to the reading experience—his personal involvement and his creative, critical, and cognitive juices stirring inside and often simultaneously—has often been disregarded by modern psychologists. Too frequently psychologists become preoccupied with study and analysis techniques and cumulative and sequential programs. We often hear the cliche, "Teaching reading as a process," but if we are going to make the statement a reality, it must not be construed as presentation equaling learning—the building of one brick upon another brick of factual knowledge. As Loban (*5*) illustrates:

> To purge one's self on emotional involvement, to avoid the "affective fallacy," to limit one's response to analytical and intellectual interests has been the message of a great many critics and scholars in our time, but theirs has proved a blighting message. Even our most intellectual university students are rejecting it now, and it is necessary that those who teach literature to children and adolescents also reject it.
>
> How, then, can we build into our instruction cognitive considerations—and around the emotions and personalities of our students.

*We can do so by building upon natural responses the student makes in reading encounters.* In any reading situation, teachers cannot ignore the reader's contribution, his personal involvement, his language and literary modes he brings to bear on print. Teachers cannot forget, at any stage of the student's development, his "personal equipment" to evoke and organize; nor can they forget that language and thought come naturally to most children by the time they enter school. How much more sensible it seems to approach reading and related activities from the way in which language and thought come naturally to students.

Bruner (*2*), like Bloom and Herber, employs the systematic objectivity of the sciences in another fashion—in what he terms a "spiral" curriculum, one in which the basic principles of a discipline are taught from the earliest level, reinforced by more and more complex activities as the child progresses through his schooling. Rosenblatt (*11*), however, pinpoints Bruner's oversight: the structuring of the spiral around theoretical conceptualization in math and science, say, may be one thing, but the structuring of such a spiral around the reading of literature is another. Literature is not that tenable, for literature does not present itself a structure of generally agreed upon concepts. As an alternative, Rosenblatt implies the absence of formal analysis in the teaching of reading and suggests ". . . conscious attention to response or verbal signs and their organization into a mode of immediately apprehended experiences." We must build upon the student's own responses to reading even though such responses may be lacking in sophistication.

Unsophisticated responses are the stuff from which, after refinement and development, more mature responses to reading are made. One aim of teachers, then, should be to refine and develop responses students are already making in reading activities. But progress in reading often lies in perceiving complex patterns of events and the form of the varying relationships, in spotting clues separated and diverse in nature, and in finding satisfaction in patterns of events that may be unrelated to the student's expectations and background. We must lead our students toward sophistication and maturity in reasoning—no easy task. There are, indeed, a number of pitfalls to avoid.

In his classic study *Practical Criticism,* Richards (*9*) lists a number of interferences that can occur in the reading process, among them unsupported personal contributions in reading, what he calls "mnemonic irrelevancies"—a kind of misreading. The reading experience the student brings to the book is irrelevant because he has become too preoccupied with his own emotions, his own interests, his own self—unfair reading aggression. As Richards (*10*) reminds us ". . . preoccupations with self-regarding interest to the reciprocal claims to human intercourse lead to a form of organization which deprives the person so organized of whole ranges of important values."

Admittedly, there are many mature students with attitudes and ideas already crystallized, already settled in through structures. But mature readers build and modify their reading and thinking over the school years, keeping an open mind for a more appropriate response. Hopefully, they will continue to read with roots of reason. The mature reader is not the teacher's worry at this particular moment.

What about the student who is not aware or cannot control his "stock response?" What about the dogmatic, rigid, student with set attitudes, one-dimensional insights, conventional thought, and platitudinous ideas? What about the student prepossessed with stereotyped images of people and life situations, reinforced through mass media and by the people around him? How do his preconceptions and prejudices restrict his reading experience, his responses? How can this student free his judgment from ready-made responses? How can he learn to respond to special and specific characteristics and qualities in print? Indeed, the concern of these questions goes beyond general reading boundaries to knowledge of human psychology and sociology.

Teachers, therefore, must not only permit students to make free responses to reading but they must also help students weigh their responses. We are living in an age of technology and transition, an age in which, more than ever before, we are hearing that students must be prepared to understand concepts and to know how to acquire information on their own. And whether students read for facts or to "transcend the here and now" or both, teachers must help students understand intrinsic relationships in thought, speech, and print. If we are to accomplish improved cognition in our classroom, students must be given opportunities to focus relationships in line with concepts, with previous knowledge and experience developed at different stages of growth. And teachers concerned with improved cognition in reading instruction must work in a way similar to that of the scientist, searching for "hidden likenesses" to fuse together—similarities that exist between the cognitive and affective domains.

Whitehead (*12*), for example, sees in response to literature and the affective domain a similar concern to that Bloom outlines in the cognitive domain: "What I have in mind is a gradual development of a stable core of more sustained discriminations around which new judgments come to be organized, together with a readiness to examine in a more distant and thoughtful way the grounds on which it may be possible to justify such judgments to others." And Bloom's *analysis, synthesis,* and *evaluation* classes of cognition in learning suggest response to learning, interaction between teacher and student and student with students.

*Much teacher-student interaction is needed for developing and refining student responses to reading, but it must be different from the usual cold-blooded analysis.* The teacher must come to know the student. Moffett (*6, 7*) advocates a dialogical approach to learning, one in which mind meets mind in grappling with ideas, often resulting in a reorganization of personal concepts and attitudes quite different from those a student might achieve on his own. When dialogue is both emotionally and intellectually centered, students emerge from discussions capable of making a number of personal syntheses of what actually occurred. And viewpoints often will differ, particularly among students from different cultures and backgrounds—a healthy situation.

Unfortunately, many teachers lack competence in guiding students in momentary and central learning experiences. Far too many teachers evade, restrict, and control genuine responses to reading experience and chiefly by retreating to teacher-centered activities, to piecemeal explorations all neatly listed: labeling of levels of comprehension, identifying of characters and setting, diagraming of tension and conflict, separating of content from form, paraphrasing of poetry, defining of recurrent themes, summarizing of plots, scanning of verse patterns, classifying of style, dismantling of structure, rehashing of background material—"cool cognitive refuges from the total moving experience" (*5*). What seems to be needed is a measure of teacher effectiveness in guiding student-teacher responses during reading activities.

Henry (*3*), in his research on teaching style, claims that teacher behavior can be divided into moves, cycles, modes, and patterns, whose recurrences can be traced and counted, and conclusions about the nature of the teaching can be drawn. He cites the following areas in which teacher behavior can be accurately measured and evaluated:

1. Number of questions asked and rate of questioning. (Near absence of questions and, on the other hand, too rapid questioning for one-word answers both indicate weakness.)

2. Cognitive level of questions asked. (Too many questions calling merely for information or recall, too few eliciting evaluation and hypothetical analysis suggest a low order of thinking in the teacher's classroom.)

3. Number of subtopics introduced per class period and depth of treatment given to teach. (Six topics skimmed in forty minutes can add up to too much subject matter too fast.)

4. Student response. (Many more student responses than there are questions indicate high reaction to teaching. Cycles of questions, when analyzed, can suggest both teacher permissiveness and students' self-direction. Length of student responses can show how much a teacher is involving students in a topic.)

5. Teacher reaction to student responses. (For example, how often does the teacher invite other students to react to a student response? Does the teacher build future questions upon present student response?)

6. Range of activities the teacher employs in class: panel discussions, reports, individual projects. (Too few activities that give students of English experience in organization of thought indicate teaching methods that operate against mental growth (*8*).)

Some consideration must be given to Henry's second point. Could just the opposite of his statement be true? Before some students can reach a hypothetical analysis, might not a teacher need to build into his presentation a number of literal questions? Moreover, could not the Herber studyguide be considered for such a teaching strategy? Well-designed questions guide students in their thinking and in their responses to reading. But well-designed questions must include more than a consciousness of and a consideration for levels of comprehension.

In discussing the fifth and final point, I am not talking about an isolated mechanical skill that can be achieved at so much per pupil. I am talking about a vital, vibrant, and vigorous interaction between teachers and students. Here are some other questions teachers often must consider in weighing student responses: How much does the student's past, present state of mind, interests, and understanding of life and social conditions help or hinder his reaching an appropriate complete response? How far removed is the context of the student's past experiences from the historical and social context in which he now finds himself reading? How much do they conflict? What forces within each prevent full interaction? How much does personal blindness enter into his interpretation? How relevant and realistic are his responses in relation to the context of the book? Are they sound or are they unsupported? Is the reader's obsession with a momentary preoccupation serving as a screen between him and the book? Do they block and distort, preventing the student from evoking a balanced reaction? Or is he a receptive reader when he reads, capable of free responses in the light of new ideas and feelings? Whatever the answers to the questions, the reader will not, nor does he need to, have the identical experiences of the author. Nevertheless, it becomes part of the teacher's responsibility to assist the student in weighing his responses as much as possible, leading him toward a more mature and integrated personality—progress in growth.

Cognition in reading is a vast topic, and many authorities hold varied opinions on the subject. I have limited this presentation, however, to a five-part search for similarities, a search that considers cognition in relation to language, literature, and learning theory. And I have done so with good intentions. We are living in an age in which accountability is a powerful catalyst for reform and renewal of the school system. Many teachers are already looking to the producers of educational materials for accountability in regard to the performance of their "products." Other educators, in contrast, fear an overabundance of lower level cognitive behavioral objectives may encourage the capitalizing upon mechanical and submechanical methods—formal elements that so easily can become substitutes for more meaningful experiences. In our pluralistic society, cognitive objectives alone cannot be a main goal of education. Teachers no longer can continue to divorce thought from feeling, emotion from behavior. More than ever before students must be given the chance to observe and discuss and modify feelings, thought, and behavior to make comparisons and to formulate conclusions—to see values in alternative choices. By weighing student responses in reading activities, teachers consider collectively the cognitive and affective domains. And by weighing their own responses in teaching situations, teachers can develop with students the kind of interaction that stirs within students the realization that there can be, there must be, far greater ways for them to serve their goals.

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# TEACHERS' QUESTIONING BEHAVIOR IN THE DEVELOPMENT OF READING COMPREHENSION

*Odarka S. Trosky*
*The University of Manitoba*

Recent research on teacher behavior in the development of reading comprehension (*2*) reveals a concentration on questions for recall and recognition and suggests that this is a result of teachers' lack of awareness of the various dimensions of reading comprehension. Research on teaching behavior, in general, suggests that supervisory conferences may have a role in fostering changes in teachers' questioning behavior.

The purpose of the study was to investigate the relationship between the percentage of teachers' questions designed to elicit recognition and recall and a series of supervisory conferences during which the teachers were made aware of specific dimensions of reading recognition.

The study sought to identify and describe the modifications, if any, of teachers' questioning behavior relative to six dimensions of reading comprehension: recognition, translation, inference, evaluation, explanation, and imagining.

Samples of teachers' questioning behavior in the development of reading comprehension were examined before, during, and following the series of supervisory conferences. The verbal behavior of the conferences was analyzed according to the content of each conference with each teacher.

## *DEFINITIONS*

*Change or modification.* Change is defined as evidence of a different distribution in the teachers' questioning in terms of variety and frequency among the six categories of reading comprehension.

*Treatment.* The supervisory conferences were considered the treatment.

## *GENERAL HYPOTHESIS*

The general hypothesis of the study was that changes in teachers' questioning behavior in lessons designed to develop reading comprehension were facilitated through a particular sequence of supervisory conferences. In comparison with the lessons taught prior to the conferences, those following the series showed a changed distribution in the frequency of the various kinds of questions. The change was in the direction of a decrease in the number of questions evoking recognition, the decrease proportionate to the total number of questions posed during the lesson.

## *SPECIFIC QUESTIONS FOR RESEARCH*

1. Did changes occur in the teachers' questioning behavior in the development of reading comprehension during the particular series of supervisory conferences?
2. Following the series of supervisory conferences, what were the changes in the direction, frequency, and proportion of teachers' questions asking for the literal comprehension dimension of recognition?
3. If a decrease occurred in the frequency and proportion of questions evoking the recognition dimension following the series of supervisory conferences, was there an effect upon the questions eliciting the rest of the dimensions of reading comprehension?
4. Was there a change in the direction, frequency, and proportion of teachers' questions asking for the literal comprehension dimension of recognition following either Conference 1 or 2?
5. If a decrease occurred in the frequency and proportion of questions evoking the recognition dimension following the first and/or second conference, was there an effect upon the questions eliciting the rest of the dimensions of reading comprehension?
6. What were the stated opinions of the teachers as to what phases of the treatment, if any, influenced them into modifying their questioning behavior in the development of reading comprehension?

## *CATEGORIES OF READING COMPREHENSION*

The study examined six dimensions of reading comprehension which were not considered in a hierarchical order.

*Recognition.* The information can be found clearly in the textual material, and the reader is required to have only a literal understanding of it. The comprehension skill involves the task of locating the information and recalling it upon request or reading it directly from the text. Such activity is concerned essentially with the retrieval of small portions of factual material although the activity can vary greatly in difficulty depending upon the nature of the item called for and its prominence in the text.

*Translation.* The reader is required to render in his own words an accurate construction or version of the word, phrase, or sentence found in textual material. The behavior is at the literal understanding level in that the translator does not have to discover relationships, implications, or subtle meanings. He must, however, be able to change words, ideas, or images found in the written material into his own words. He can translate from one level to another as in definitions of words, in moving from lengthy communication to that of succinctness or vice versa, and in changing from figurative language to literal English.

*Inference.* To be able to infer requires "reading between the lines"; seeing relationships between facts, events, and ideas; finding subtle or hidden meanings; and perceiving implications. The reader must discriminate, abstract, and generalize from the information presented as well as classify, summarize, and state the main ideas along with any supporting details. Unless the information is stated clearly in the text, questions eliciting description, comparison, and contrast also come into the category of inference.

*Evaluation.* Matters of personal value rather than of fact or inference are the concern of evaluation; the reader is required to pass his judgment concerning such matters as particular characters, events, and feelings evoked by his reading. Evaluation may include inference but goes beyond it and is characterized by qualitative and quantitative judgmental action which is concerned with such matters as desirability, worth, acceptability, significance, accuracy, amount, degree, and condition.

*Explanation.* When asked to explain or elaborate, the reader must be able to offer a rationale as to the "why" of a situation. The rationale must be based upon information either inferred from, or stated in, the material read and upon which the reader wishes to elaborate. In elaborating, the reader is permitted to expound, disclose, clarify, or prove. It is in this category that the reader tells why he thinks as he does.

*Imagining.* Extrapolating information from the written material, the reader discovers new relationships, principles, or ways of looking at things. He can develop or elaborate upon the author's thoughts, transforming and rearranging them according to his own needs. He can hypothesize and can show his resourcefulness by offering suggestions based on the situation presented in the reading material.

## *GENERAL DESIGN OF THE STUDY*

1. *Initial tape recording session.* A set of two lessons in reading comprehension taught by each teacher in the study was taped.
2. *Conference 1.* The aim of the first conference was to make the teacher aware of the purposes of questioning in a reading comprehension program. The supervisor discussed with the teacher the general uses of questioning: testing knowledge, building knowledge, and fostering self-reliance in the reader. Specific characteristics of adequate questioning, such as variety in the teacher's questioning to promote the various dimensions of reading-thinking operations and careful organization and logical sequencing of questions, were also discussed.

   Since it was impossible to predict the course of the discussion during the conference, a tape recording of the discussion was transcribed and analyzed for the topics discussed, ideas elicited from the teacher, and suggestions made by the teacher. This procedure was followed for each of the teachers in the study.
3. *Second tape recording session.* A set of two lessons followed conference 1. The lessons were taped under conditions similar to those for the first taping session.
4. *Conference 2.* During this conference, the teacher and the reading supervisor discussed in detail the six dimensions of reading comprehension. Following this discussion, they suggested jointly various kinds of questions likely to evoke these dimensions.

   Due to the nature of this conference, it was not possible to predict the course of the discussion. As in conference 1, a tape recording was taken, transcribed, and analyzed for the categories of questions discussed and for the ideas and suggestions offered by the teacher. This procedure was followed for each teacher in the study.
5. *Third tape recording session.* Two lessons were taped under conditions similar to those prevailing in the first two taping sessions.
6. *Conference 3.* A tape recording was played of one of the lessons in the third taping session. The lesson was self-analyzed by the teacher regarding his questioning behavior in the development of reading comprehension. The purpose of this procedure was to foster self-improvement through self-appraisal. During this conference, the supervisor encouraged the teacher to formulate his own ideas concerning his ques-

tioning behavior and offered suggestions as to how the teacher might improve it.

Following the playing of one of the tapes from the third taping session, the teacher analyzed it and the accompanying transcription in the presence of the reading supervisor. The reading supervisor offered supporting comments to the observations made by the teacher. This procedure was followed with each teacher in the study.

A tape recording of this conference was transcribed and analyzed for the kinds of observations made and for the suggestions offered by the teacher for improving his questioning behavior in the development of reading comprehension.

7. *Fourth tape recording session.* A set of two lessons was taped under conditions similar to those of the previous taping sessions.
8. *Post-treatment interview.* An unstructured interview was conducted during which the teacher's evaluation of changes in his questioning behavior in relation to the intervention of the series of supervisory conferences was obtained. During this assessment, factors conducive to any modifications which had been noted were determined and if no change had been observed, reasons for the absence of change were identified.

The entire experimental period extended over approximately six weeks.

### *SAMPLE*

From teachers with at least one year of teaching experience, in one particular school district, five third grade teachers were randomly selected to participate in the study. Each teacher was from a different school. The initial contact with each teacher was made through the reading-instructional department of the school district. No information was given to the teacher or his principal except that the investigator wished to obtain data concerning the verbal interaction between the teacher and his pupils during a lesson in reading comprehension. The investigator assumed the role of the reading supervisor.

### *SOURCE FOR THE DATA*

The data for the study were obtained from the taped content of the lessons developing reading comprehension. Though every lesson was transcribed in its entirety, only the teacher's questions were examined.

## *ANALYSIS OF DATA*

In the study significant differences were reported for the frequencies of the questions for the different dimensions of reading comprehension. To test the compatibility of observed and expected frequencies, chi-squares were used. To obtain a more accurate view of the changes in the recognition dimension, significance of the difference between proportions of questions was determined, based on frequencies in the recognition dimension.

### PILOT STUDY

The pilot study undertook to 1) train the judges in classifying the questions according to the descriptions of each dimension of reading comprehension used in the study; 2) determine the validity and reliability of the categories of questions to be used in the research study; 3) determine how many lessons should constitute a taping session; 4) establish some standard procedures for the conferences; 5) train the supervisor in the use of the supervisory conferences; 6) develop the procedures for obtaining the data; and 7) explore the difficulty level of the reading material to be used in the study.

### RESEARCH STUDY

One suburban school district of metropolitan Toronto, Ontario, was engaged in the research study. The school district, which was composed essentially of a middle class population, agreed to permit its teachers to participate in the study. Five third-grade teachers were selected [see "Sample"].

## *SUBJECT MATTER*

Each teacher was asked to prepare lessons based upon ten selections of content material. Only two selections were given to the teacher at any one time. The children received their individual copies at the beginning of each lesson.

The reading material was new, being part of a new basal reading series then in press (*1*). Neither the teachers nor the pupils had seen any part of the material prior to the experimental study. The material was selected from the third grade reader in the series since no obvious reading difficulties had been noted during the pilot study.

## *COLLECTING THE DATA*

A schedule of observations was arranged by the investigator with each teacher. Each of the lessons and the conferences was scheduled for the same time on alternate days. A half-hour was allowed for each lesson and for each conference. A schedule was given to both the teacher and her pupil.

Each teacher was asked to teach the same group of children at the same time of the day for each taping session. The group selected by each teacher was composed of girls and boys considered to be of nearly average reading ability. Since the study concentrated directly on the modifications in the teachers' questioning behavior, no efforts were made to determine exactly the children's reading abilities. To allow time for teacher preparation, the lessons were taped two days apart. Each lesson was taped in its entirety.

Each teacher was asked to refrain from attending any outside interventions (workshops, lesson demonstrations) for the duration of the study to preclude the possibility of their influencing the teachers' questioning behavior.

To negate the distorting effect of novel procedure upon the teachers' questioning behavior, four lessons in reading comprehension were taped prior to the first conference, the first two taped lessons being omitted from the study.

All taping was carried out by the investigator.

The conferences were conducted outside the classroom but at the same prearranged time as the reading comprehension lessons.

## *FINDINGS OF THE STUDY*

Since the five teachers in the study had a variety of experiences and qualifications, each teacher was treated as a separate case study.

Tables 1 through 5 present the frequencies and percentages of teachers' questions in the six dimensions of reading comprehension before, during, and following the supervisory conferences. Table 6 presents the differences between the proportions of questions eliciting the recognition dimensions for the five teachers.

The findings are hereby submitted in relation to the specific questions for research.

*Question 1.* With one exception, all the teachers made modifications in their questioning behavior during the series of supervisory conferences. As tables 1 through 5 indicate, three teachers' changes were significant at the .001 level and one was significant at the .01 level, indicating these modifications could not be accounted for by chance.

*Question 2.* The differences noted in the recognition dimension when the first and final taping sessions were compared are as follows:

## TABLE 1

TEACHER 1. FREQUENCIES AND PERCENTAGES OF QUESTIONS ELICITING SIX DIMENSIONS OF READING COMPREHENSION PRE- AND POST-SUPERVISORY CONFERENCES

| | | READING COMPREHENSION DIMENSIONS | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Taping Session | | Recognition | Translation | Inference | Evaluation | Explanation | Imagining | Number of Questions |
| I | f | 47 | 4 | 11 | 13 | 24 | 18 | 117 |
| | % | 40.17 | 3.41 | 9.41 | 11.11 | 20.51 | 15.39 | |
| II | f | 64 | 3 | 4 | 30 | 30 | 16 | 147 |
| | % | 43.54 | 2.04 | 2.72 | 20.41 | 20.41 | 10.88 | |
| III | f | 76 | 6 | 7 | 32 | 33 | 50 | 204 |
| | % | 37.25 | 2.94 | 3.43 | 15.69 | 16.18 | 24.51 | |
| IV | f | 40 | 3 | 12 | 45 | 79 | 48 | 227 |
| | % | 17.62 | 1.32 | 5.29 | 19.82 | 34.80 | 21.15 | |
| $X^2$ | = | 50.25 | df = 3 | | .05= (7.81) * | .01= (11.34) ** | .001= (16.27) *** | |

## TABLE 2

TEACHER 2. FREQUENCIES AND PERCENTAGES OF QUESTIONS ELICITING SIX DIMENSIONS OF READING COMPREHENSION PRE- AND POST-SUPERVISORY CONFERENCES

| | | READING COMPREHENSION DIMENSIONS | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Taping Session | | Recognition | Translation | Inference | Evaluation | Explanation | Imagining | Number of Questions |
| I | f | 46 | 4 | 0 | 25 | 20 | 18 | 111 |
| | % | 41.44 | 5.61 | 0 | 22.52 | 18.02 | 12.61 | |
| II | f | 27 | 3 | 12 | 25 | 27 | 9 | 103 |
| | % | 26.21 | 2.91 | 11.66 | 24.27 | 26.21 | 8.74 | |
| III | f | 25 | 6 | 26 | 20 | 31 | 15 | 123 |
| | % | 20.32 | 4.87 | 21.13 | 16.26 | 25.21 | 12.11 | |
| IV | f | 49 | 3 | 5 | 47 | 28 | 24 | 156 |
| | % | 31.41 | 1.92 | 3.21 | 30.13 | 17.95 | 15.38 | |
| $X^2$ | = | 14.03 | df = 3 | | .05= (7.81) * | .01= (11.34) ** | .001= (16.27) *** | |

## TABLE 3

### TEACHER 3. FREQUENCIES AND PERCENTAGES OF QUESTIONS ELICITING SIX DIMENSIONS OF READING COMPREHENSION PRE- AND POST-SUPERVISORY CONFERENCES

| | | READING COMPREHENSION DIMENSIONS | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Taping Session | | Recognition | Translation | Inference | Evaluation | Explanation | Imagining | Number of Questions |
| I | f | 25 | 8 | 4 | 7 | 9 | 9 | 62 |
| | % | 40.32 | 12.90 | 6.45 | 11.29 | 14.52 | 14.52 | |
| II | f | 41 | 0 | 6 | 8 | 9 | 17 | 81 |
| | % | 50.62 | 0 | 7.41 | 9.87 | 11.11 | 20.99 | |
| III | f | 37 | 4 | 8 | 10 | 18 | 3 | 80 |
| | % | 46.25 | 5.00 | 10.00 | 12.50 | 22.50 | 3.75 | |
| IV | f | 28 | 7 | 11 | 5 | 32 | 15 | 98 |
| | % | 28.57 | 7.14 | 11.23 | 5.10 | 32.65 | 15.31 | |

| | .05= (7.81) | .01= (11.34) | .001= (16.27) |
|---|---|---|---|
| $X^2 = 21.35$ df = 3 | * | ** | *** |

## TABLE 4

### TEACHER 4. FREQUENCIES AND PERCENTAGES OF QUESTIONS ELICITING SIX DIMENSIONS OF READING COMPREHENSION PRE- AND POST-SUPERVISORY CONFERENCES

| | | READING COMPREHENSION DIMENSIONS | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Taping Session | | Recognition | Translation | Inference | Evaluation | Explanation | Imagining | Number of Questions |
| I | f | 24 | 3 | 11 | 13 | 15 | 1 | 67 |
| | % | 35.82 | 4.48 | 16.42 | 19.40 | 22.39 | 1.49 | |
| II | f | 42 | 1 | 5 | 13 | 22 | 3 | 86 |
| | % | 48.84 | 1.16 | 5.81 | 15.12 | 25.58 | 3.49 | |
| III | f | 57 | 3 | 10 | 11 | 23 | 7 | 111 |
| | % | 51.35 | 2.70 | 9.01 | 9.91 | 20.72 | 6.31 | |
| IV | f | 47 | 2 | 9 | 19 | 24 | 9 | 110 |
| | % | 42.73 | 1.82 | 8.18 | 17.27 | 21.82 | 8.18 | |

| | .05= (7.81) | .01= (11.34) | .001= (16.27) |
|---|---|---|---|
| $X^2 = 4.80$ df = 3 | N.S. | N.S. | N.S. |

TABLE 5

TEACHER 5. FREQUENCIES AND PERCENTAGES OF QUESTIONS ELICITING SIX DIMENSIONS OF READING COMPREHENSION PRE- AND POST-SUPERVISORY CONFERENCES

| | | READING COMPREHENSION DIMENSIONS | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Taping Session | | Recognition | Translation | Inference | Evaluation | Explanation | Imagining | Number of Questions |
| I | f | 44 | 7 | 9 | 12 | 8 | 8 | 88 |
| | % | 50.00 | 7.95 | 10.23 | 13.64 | 9.09 | 9.09 | |
| II | f | 21 | 1 | 0 | 13 | 11 | 6 | 52 |
| | % | 40.39 | 1.92 | 0 | 25.00 | 21.15 | 11.54 | |
| III | f | 37 | 0 | 18 | 15 | 9 | 21 | 100 |
| | % | 37.00 | 0 | 18.00 | 15.00 | 9.00 | 21.00 | |
| IV | f | 14 | 0 | 5 | 39 | 19 | 35 | 112 |
| | % | 12.50 | 0 | 4.46 | 34.83 | 16.96 | 31.25 | |
| $X^2$ = 34.81 | df = 3 | | | | .05= (7.81) * | .01= (11.34) ** | | .001= (16.27) *** |

TABLE 6

DIFFERENCES BETWEEN THE PROPORTIONS OF QUESTIONS ELICITING RECOGNITION

| Teacher | Taping Session | Combined Proportion | Standard Diff. of Proportion | Derived t-value | df | .05 = (1.96) | .01 = (2.58) | .001 = (3.29) |
|---|---|---|---|---|---|---|---|---|
| 1 | 1-2 | .4204 | .0763 | .442 | 262 | N.S. | N.S. | N.S. |
| | 2-3 | .3988 | .0530 | 1.187 | 349 | N.S. | N.S. | N.S. |
| | 3-4 | .2691 | .0428 | 4.589 | 429 | * | ** | *** |
| 2 | 1-2 | .3411 | .0648 | 2.349 | 212 | * | N.S. | N.S. |
| | 2-3 | .2300 | .0562 | 1.046 | 224 | N.S. | N.S. | N.S. |
| | 3-4 | .2652 | .0532 | 2.087 | 277 | * | N.S. | N.S. |
| 3 | 1-2 | .4615 | .0842 | 1.223 | 141 | N.S. | N.S. | N.S. |
| | 2-3 | .4844 | .0788 | .544 | 159 | N.S. | N.S. | N.S. |
| | 3-4 | .3651 | .0725 | 2.438 | 176 | * | N.S. | N.S. |
| 4 | 1-2 | .4314 | .0807 | 1.613 | 151 | N.S. | N.S. | N.S. |
| | 2-3 | .5025 | .0718 | .3495 | 195 | N.S. | N.S. | N.S. |
| | 3-4 | .4705 | .0671 | 1.284 | 219 | N.S. | N.S. | N.S. |
| 5 | 1-2 | .4642 | .0872 | 1.103 | 138 | N.S. | N.S. | N.S. |
| | 2-3 | .3815 | .0830 | .407 | 150 | N.S. | N.S. | N.S. |
| | 3-4 | .2405 | .0588 | 4.166 | 210 | * | ** | *** |

Teacher 1—decrease of 22.55 percent
Teacher 2—decrease of 10.03 percent
Teacher 3—decrease of 11.65 percent
Teacher 4—increase of 6.91 percent
Teacher 5—decrease of 37.50 percent

Table 6 indicates that three teachers decreased the proportion of recognition questions, one at .05 and two at .001 levels of significance.

*Question 3.* Tables 1-5 show that there was no clear-cut effect upon the questions calling for the rest of the dimensions of reading comprehension following the supervisory conferences. Explanation appeared to be the one dimension which received greater attention from all three teachers who made significant changes in their questioning behavior.

*Question 4.* Following the first conference, two teachers decreased their emphasis upon the dimension of recognition by 15.23 percent and 9.92 percent as indicated in Tables 2 and 5 with the former decreasing the proportion at .05 level of significance as shown in Table 6. Tables 1 through 5 show that after the second conference, four teachers reduced the concentration on the recognition dimension ranging from 6.29 percent to 3.38 percent; no significant changes were noted in the proportions of recognition questions.

*Question 5.* The teacher who decreased her proportion of recognition questions following the first conference placed relatively greater emphasis upon inference and explanation dimensions as indicated in Table 2.

*Question 6.* Two teachers stated that they did not change their questioning behavior during the series of supervisory conferences. Three stated they had changed and that this change was in the direction of a reduction in the number of questions evoking the dimension of recognition. Of these three teachers, one thought the change was related to the combination of conferences 2 and 3 while two thought it was conference 3. All three teachers acknowledged that the particular sequence of supervisory conferences was essential in promoting and facilitating the change.

## *SUMMARY*

As evidenced by the data in this study, the teachers dwelt on the literal comprehension area of recognition in higher proportions than in any other of the six dimensions of reading comprehension. The study suggests that neither conference 1, which made teachers aware of the importance of questioning in reading comprehension, nor conference 2, which made them aware of the different types of reading comprehension dimensions with samples of questions to elicit each, helped teachers to change significantly their questioning behavior in the development of reading comprehension. The subsequent self-evaluation of teachers' questioning behavior in reading comprehension in conference 3 facilitated significant changes in both the frequency and proportion of questions evoking the dimension of recognition. It should be noted, however, that the self-evaluation was based upon the awareness of the importance of teachers' questioning in the development of reading comprehension and upon the discussion of the different dimensions of reading comprehension. Hence, it would appear that it was the series of supervisory conferences which was related to the outcome of decreases in the frequencies and proportions of recognition questions and not just the third conference.

No definite pattern was evident for the other categories of reading comprehension in the teachers' questioning. It would appear that for particular changes in certain reading comprehension dimensions to occur, direct attention needs to be focussed on these dimensions.

According to the opinions of the majority of the participating teachers, the series of three supervisory conferences facilitated changes in their questioning in the development of reading comprehension regarding a reduction in the frequency and in the proportion of questions evoking the dimension of recognition.

One of the two teachers who did not make any significant changes in her questioning behavior stated that the series of conferences made her aware for the need of more guidance and help in effecting the desired changes. This remark suggests that the series would not be sufficient for all teachers in effecting certain changes and that for some teachers further conferences with more direct assistance from the supervisory would be needed.

## *IMPLICATIONS*

By demonstrating that third grade teachers in this district most frequently elicit the recognition dimension of reading comprehension and that for the majority of the teachers its subsequent reduction is related to the series of supervisory conferences, the study suggests the need for such a series becoming a part of an inservice program in reading comprehension.

The fact that the teacher was made aware that she required more assistance and indicated the kind of assistance she needed appears to reinforce the value of incorporating this series of conferences into an inservice training program for teachers of reading comprehension.

The study indicates that the series of supervisory conferences should be held within a concentrated period of time. Regular visits and conferences within this period of time are essential in effecting changes in teachers' questioning behavior in this area of reading.

Tapes should be used frequently during supervisory conferences for the improvement of teachers' questioninig procedures in developing reading comprehension. Such an aid can be used effectively to inform the teacher of her current instructional behavior and to point the direction for improvement. It can also serve as a vehicle to teach with some precision knowledge about the various reading comprehension components, to suggest alternative ways to develop reading comprehension, and to offer samples of different teachers' questioning behaviors in developing reading comprehension. The tapes have a further advantage in that they can be reviewed from time to time for a variety of purposes, such as evaluating the progress teachers make in effecting the desired changes.

## REFERENCES

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# PUPIL RESPONSES IN OPEN-STRUCTURED AND CLOSED-STRUCTURED READING ACTIVITIES

*Richard M. Petre*
*Maryland State Department of Education*

This study investigates the quality, quantity, and variety of pupil responses while using two different group directed reading procedures, the Directed Reading Activity (DRA) and the Directed Reading-Thinking Activity (DR-TA) found in basal readers. According to Austin and Morrison (*2*) and Steward (*14*), 90 percent of the elementary schools in America rely on the basal readers to develop sound reading and thinking skills. Such universal acceptance seems to justify an examination of the validity and effectiveness of the methodology they advocate.

## *THEORETICAL FRAMEWORK*

In 1944, Betts (*3*) named the procedure which he found in most basal manuals, DRA, and suggested that it be used by teachers since it had been experimentally appraised and time tested. Recently, Chall (*4*) concluded that most manuals continue to suggest a four-part DRA. These parts are 1) preparation for the story, 2) presentation of new words, 3) guided reading and interpreting the story, and 4) follow-up activities.

A different type of directed reading procedure appeared with the publication of the Winston Basic Reader Series. Stauffer (*12, 13*) changed the usual DRA to a DR-TA in five steps: 1) identification of purposes of reading; 2) adjustment of rate of reading to the purposes declared and to the nature and difficulty of the material; 3) observation of the reading; 4) development of comprehension; and 5) fundamental skill training activities, discussion, further reading, additional study, and/or writing.

The DRA and DR-TA, when examined carefully, establish contrasting teaching-learning situations. The DRA creates a stimulus-response condition in which the teacher differentiates rewards to the reader for right or wrong answers after he has read a specific passage. On the other hand, the DR-TA establishes a learning setting where the hope of discovery and the discipline of accuracy rest between the reader and the passage read. Therefore, the learner uses his cognitive power as well as the auditorship of his participating peers throughout the reading lesson.

The studies of the social psychologists contrast the differences between the DRA and the DR-TA by monitoring the interaction network each creates.

The DRA is a closed wheel or star interaction in which the teacher becomes the central, authoritarian figure while the students assume peripheral positions. The monitored interaction shows a teacher-pupil—teacher-pupil interaction. The DR-TA establishes an all-channels-open network which causes an interaction pattern of teacher-pupil—teacher-pupil. Thus, the role of the teacher becomes one of organizer, moderator, and intellectual agitator while the students become active participants in the group process.

This study focused on pupil reaction in response to materials read during both the DRA and the DR-TA group reading strategies. Previous studies found that such reactions are related to prior instruction in general reading and thinking skills (*5, 6*), age (*1*), general intelligence (*8*), attitudes and values (*9*). However, the most important variable is the nature of the questions posed for reaction (*11, 15, 16*) in the teaching-learning situation. Thus, using a scale constructed by Wolf et al (*16*), pupil responses for quantity, quality, and variety may be recorded and analyzed during the two group-directed reading activities.

## *PROCEDURE*

All fourth graders in two nearby communities were arrayed into above grade level, at grade level, or below grade level reading groups based on teacher opinion using the instructional level criteria by Betts. One community used only a DRA procedure while the other community used only a DR-TA method. Thus, the subjects had three and one-half years of prior training in either a DRA or DR-TA. Four groups containing three girls and two boys were selected randomly in both communities for each of the three reading levels. This made 120 subjects arranged into twenty-four groups of five subjects each with both communities having two groups above grade level, two groups at grade level, and two groups below grade level.

Twelve lessons were taught during a two-week period in each community by the experimenter with an observer present. Two groups above, two at, and two below grade level in each community were taped while being instructed in a DRA as outlined in the 1967 edition of the Scott, Foresman Series. Similar groups in each community were taped using a DR-TA as present in the 1960 edition of the Winston Basic Reader Series. The 24 lessons were transcribed and each pupil response was coded on the Quality of Pupil Response Scale (*16*) by two trained raters. Two 50-random samples were used to compute rater reliability using the Pearson Product Moment Coefficient of Correlation. A mean correlation of .86 was obtained and considered significantly reliable.

### *OPTION I*

A 2×2×3×2 design was used with the main effects and dependent variables shown in Table 1.

TABLE 1
STATISTICAL MAIN EFFECTS, DEPENDENT VARIABLES, AND THEIR DEFINITIONS

| *Main Effects* | *Definitions* |
|---|---|
| a. Population | Two nearby school districts, one using a DRA Strategy and the other a DR-TA Strategy |
| b. Level | Above, at, and below fourth grade instructional level |
| c. Method | Directed Reading Activity on a Directed Reading-Thinking Activity |
| d. Sex | Number of boys and girls in each group |
| *Independent Variables* | |
| 1. Quantity of Responses | The total number of responses appearing in any of the five categories on the Ohio Scale |
| 2. Quantity Controlled Responses | The first 25 pupil responses in each lesson |
| 3. Quality of Responses | Those responses appearing in levels four and five on the Ohio Scale |
| 4. Quality Controlled Responses | Those responses made in the first 15 minutes of each lesson |
| 5. Variety of Responses | Total number of responses appearing in any of five categories on the Ohio Scale |

### *OPTION II*

A 2×2×3×2 design was used with the main effects being: population (two communities in which one use a DRA and one a DR-TA for group reading instruction), levels (above, at, and below a fourth grade reading instructional level), method (DRA or DR-TA), and sex (number of boys and girls). The dependent variables were quantity (total number of pupil responses appearing on the scale), quantity controlled (first 25 pupil responses in each lesson), quality (responses appearing in levels four and five on the scale which are skills of critical thinking), quality controlled (first 15 minutes of each lesson), and variety (total number of responses appearing in any category on the scale).

## *FINDINGS AND DISCUSSION*

Analysis of variance procedures, analyzed at the computer center of the University of Delaware with tests at the .05 level of significance, allowed the following observations to be made:

1. There is no significant difference with respect to population in this study between the means of the five dependent variables. Prior instruction in the all-encompassing strategy of a DRA or a DR-TA made no difference for pupil responses of quantity, quality, or variety.
2. There is a significant difference with respect to population between the means of the dependent variable of quality for the interactions of level versus population and for level versus population versus method. This study suggests that prior instruction in the DR-TA allows readers to make superior responses of quality.
3. There is a significant difference between the means of below grade, at grade, and above grade reading levels for each of the dependent variables. No matter whether students are reading below, at, or above grade level, they profit from a DR-TA. The DR-TA appears especially to be a most useful strategy for above grade level readers.
4. There is a significant difference at the .01 level with respect to methods between the means of the dependent variables. The DR-TA and DRA are two distinctly different group-directed reading strategies. The DR-TA strategy produced more quantity, higher quality, and greater variety of pupil responses no matter whether the pupils had prior instruction in the procedure or not.
5. There is no significant difference with respect to sex between the means of the dependent variables. Both sexes participated equally well during either a DRA or a DR-TA.

## *IMPLICATIONS*

The findings of this study suggest that the DRA and the DR-TA are two distinctively different group-directed reading strategies available for classroom usage. A DR-TA will allow pupils reading below, at, or above grade level more quantity, higher quality, and greater variety of responses than will a DRA.

The DR-TA proves particularly profitable as a classroom teaching strategy for students reading above grade level. As a reading technique with above grade level readers, the DR-TA appears to be both a practical organization as well as a profitable group experience.

The DR-TA also allows readers to do more critical thinking. Previous studies cite that students beginning in grade one can be taught to think and to read critically; however, to date no practicable and long term classroom-teaching strategy accompanies such findings. The DR-TA seems to be such a strategy since it is easily applicable to daily classroom usage and makes pupils become both critical thinkers and critical readers.

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# DEVELOPING COMPREHENSION THROUGH WORD RECOGNITION SKILLS

*Brother William Quaintance*
*La Salle High School*
*Philadelphia*

I am sure that all of you have been approached at some time by the parent who tells you, "My child has a reading problem." Before you ventured to comment, you undoubtedly tried to find out the nature of the problem. "Does the child have trouble with words or with understanding what he reads?" you probably asked, as if one were possible without the other. What I propose to do here is to break down the dichotomy between the decoding and the comprehension aspects of reading and to break up the word recognition aspects of reading into factual and inferential skills, extrapolation (figuring out what happened before and after the material was presented), and appreciation. I would like to see reading as a continuum and to see a reading problem as any situation wherein the reader lacks any of the skills needed to grasp the meaning and purpose of the written material.

If the reader doesn't even understand the words he reads, obviously he is not reading anymore than I, not knowing Russian, would be reading as I examine a page from *Pravda.* And if he knows the words but can't understand the meaning of what he reads, he is wasting his time and will soon stop trying. In fact, the second problem is perhaps more dangerous than the first because the reader might think that because he knows the words, he knows what the article is all about—and this conclusion could be disastrous.

We also know that relatively few nonreaders are totally dyslexic. Most of the problem readers we deal with know their names, their addresses, and a few words of English. Most are able to carry out simple directions, conduct conversations, and otherwise express themselves. Perhaps they use a substandard dialect, but they communicate all the same. It is this very thing that causes such frustration to parents and teachers—the child may have no great difficulty with spoken language, but he cannot read. (I realize that I am bypassing the severely retarded reader who requires the learning techniques that only a clinic and a trained staff can provide; but if such a reader is discovered, a classroom teacher can't help him anyway and eventually he will have to be referred.)

The assumption that the child can function well at the spoken level is probably inaccurate. Many times the adult in his anxiety or impatience functions for the child; and the child, through frustration or indolence, eventually gives up any attempt to function for himself. So the first task facing the teacher is to see that the child can handle adequately the spoken word. Has the child mastered words (concrete nouns) for objects? Purely on a spoken basis, can the child label an object, use its proper plural? This skill is fairly simple to teach, and the child should make rapid progress, not to mention the development of self-confidence and the rapport that begin at this stage. There might be some resentment to label learning because it is "baby stuff" or "too easy," but tasks can be devised that will be acceptable to most students. Work with newspapers, maps, menus, record albums, or traffic signs is usually sufficient to overcome reluctance.

Once basic labeling has caught on, the next step is to develop categorization skills—discernment of likenesses and differences, concept development—with the same materials.

After the child is at ease with words for objects, the teacher can begin working with pictures. Not only do they help extend the range of spoken vocabulary but they also make it possible to introduce labels for actions (verbs) and labels for discriminations (adjectives and adverbs). By working with objects and pictures, children are refining their oral language, communicating in complete sentences, acquiring control of variant forms of the words through speculation on the content and nature of the materials they are manipulating, and developing standard English.

In discussing objects, students have been operating in the most fundamental comprehension area—that of definition. They have been asking *who*? or *what*? They have probably been doing some quantitative and qualitative manipulation dealing with such concepts as singular, plural, size, importance, and value. Such concepts can be developed as well with bottle caps as with scientific apparatus. When pictures are discussed, the concept of location in time (when) and in space (where) can be developed. It is possible to find clues that will reveal where the action in a picture is taking place and when it is happening. Here again several subskills are developed. It may not be possible to locate an exact country, but at least it might be possible to isolate a region or to eliminate certain places from consideration. Time may not be expressed to the precise year, but perhaps "recently" or "a long time ago" might apply. With refinement these can be developed into historical epochs such as "renaissance" or "the classical period" or "prehistoric," and the whole notion of chronological development can be established simply through working out words and meanings with the students. Even critical thinking skills might develop in some of the discussion and evaluation of aspects within the picture.

So far I have refrained from mentioning specifically words other than nouns, verbs, or modifiers, but there is a fourth category of words which will naturally be developed in conjunction with the activities mentioned—the connecting words, prepositions and conjunctions. In the February 1971 issue of *The Reading Teacher*, Dale Johnson compares the familiar Dolch Basic Sight Word List with a list derived from a computer analysis of representative types of reading material. In both lists, the top 200 words are mostly the little Anglo-Saxon words that we use to string together our thoughts. Because of their abstractness, some linguists call them "empty" words, but their function is far from desolate. It is these words that carry the burden of transforming language into communication, of moving it from what the word means to what the author means.

Up to now I have simply been presupposing oral discussion or conversation among our nonreading pupils, with reading and writing limited almost exclusively to labeling. The emphasis was on consolidating and extending the students' oral vocabularies, on speaking in sentences, and on acquiring a respect for inflections. Now the readers can learn a few words of their own from the Dolch or the Kucera-Francis or the Brown University Standard Corpus of Present Day Edited American English. Most of the words are short, and most are phonetically regular. Connecting words have no endings to complicate them and, thus, are always the same in print. Hopefully by this time, at least some of the students will have developed enough curiosity to be willing to tolerate such artificial activities as listing all the one letter, the two letter, and the three letter words in the English language.

It should be noted that no attempt has been made to edit the words used by the children. As far as they are concerned, children either know a word or they don't. There is no such thing as readibility as far as they are concerned. Fifth grade words and preprimer words do not exist, even though many dissertations and basal readers owe their existence to the concept of a graded vocabulary. Is there any first grader in this land who doesn't know the word "astronaut?" Now that we have discussed words about objects and words about pictures, we should devote some consideration to a third category, words about words.

It is in the area of vocabulary development that oral and written communication become the masters of reality rather than merely the recording secretaries. By using an appropriate word, the speaker or writer transcends existence and location and moves freely in the areas of deduction and creativity. He is asking *how* so that he can make other ideas his own. If a child is guided to develop a vocabulary, his own thinking will become more precise, his learning more extensive, and his expression more lucid. In knowing the capabilities of language, he will more readily be able to detect deficiencies and be less subject to propaganda and fallacious thought. Finally, he will be able to understand even technical descriptions and operations, once he can isolate components, operations, and finished products.

Initially, this vocabulary development might come when a child stumbles over the nuance he needs to describe a certain mood or situation. He could then be directed to a reading passage where another author has had the same problem and has successfully solved it. From it is a short step to developing independent reading, vocabulary enrichment, and creative writing. Though the step is short, it is none the less difficult. Great skill is required to avoid creating a dislike for reading at this point. But insistence on accuracy, precision, brevity, and promptness in speech—together with a development of appreciation for good communication and analysis of poor, pedantic, repetitive, or confusing writing for contrast—may lead to efficient use of the dictionary, a thesaurus, and an anthology. Letter writing or diary keeping might encourage creative writing. And as a final consequence, a student proficient in language becomes more facile in demanding to know *why* someone is speaking or writing to him. He will seek motives behind the communication and be better equipped to learn from all communication—good or bad, true or false.

What I have attempted to do is show that word meaning can never be separated from phrase meaning, sentence meaning, paragraph meaning, or book meaning. While the beginnings of word mastery come slowly and through limited experience with concrete objects at the spoken level, mastery of a simple skill makes possible the learning of a skill slightly more complex. And as a few skills become familiar, further dimensions of communication may be examined. As proficiency increases at one level, it can be guided into other aspects with ever-deepening insights resulting. We have stressed that, while at first it might be necessary to tolerate substandard communication, the goal should remain precise—lucid exchange and evaluation of ideas through speech and reading. And just as the teacher must tolerate deficiencies in early stages, so she should not reject early accomplishments which might disarrange a schedule or a class grouping.

Finally, it should have been evident that actual separation of communication into listening, speaking, reading, and writing is harmful to language development, however useful it might be to reading teachers. Gains in all areas should be sought, and gains in any area should be used to develop other gains.

# SELECTED ORAL READING ERRORS AND LEVELS OF READING COMPREHENSION

*Linda Packman*
*Glassboro State College*

Analysis of the criteria used to determine the independent, instructional, and frustration levels in reading by means of different informal reading tests results in different estimates of the reading level of the pupil. One reason for these variant estimates is that disagreement exists over the significance of the types of oral reading errors. Should all oral reading errors be counted or only those that alter the meaning of a sentence (*5*)? McCracken (*6*) reports that it is the number of oral reading errors a child makes when reading that is important and not the kind of error or the error pattern. Goodman (*3*) defines oral reading errors as miscues indicating the child's interaction with the written language. Not all miscues should be given equal value. Christenson (*1*) found significant differences among the kinds of oral reading errors made at the independent, instructional, and frustration reading level. Nurss (*8*) suggests that children's oral reading errors may be used to assess their semantic and grammatical understanding of the material they read.

In light of the disagreement among reading specialists about the significance of oral reading errors in evaluating a pupil's performance in reading, it seemed important to investigate the relationship between types of oral reading errors and comprehension—the endpoint and ultimate goal of the entire reading process.

The purpose of the study was to investigate whether some oral reading errors are more significant than others in evaluating a pupil's performance in reading at six reading comprehension levels. To this end, the study tested hypotheses comparing percentages of errors in pronunciation (the child does not know the word and the examiner pronounces it), mispronunciation (the child mispronounces the word), omission, substitution, addition, repetition, and punctuation to the level of reading comprehension for good, average, and poor readers.

## *DESIGN*

Thirty boys and girls, selected from a population of 173 fourth grade students on the basis of their stanine scores on the Word Meaning and Paragraph Meaning Tests of the Intermediate I Battery, Form X, of the Stanford Achievement Test participated in the study. Ten subjects were randomly selected from all those in the population who had received a stanine of 1, 2, or 3 on these tests and were defined for the analysis of the data as poor readers. In a similar fashion, groups of ten each were drawn from stanines 4, 5, or 6 and 7, 8, or 9 and labeled average and good readers, respectively.

After the thirty subjects were chosen on the basis of their stanine scores, the subjects were individually given oral reading stories and oral reading comprehension questions from the *Standard Reading Inventory* (7). All oral readings and responses to reading comprehension questions were recorded on tape for further analysis. These stories and reading comprehension questions were administered until the following six reading comprehension levels were obtained for each of the thirty readers: 91 to 100 percent; 81 to 90 percent; 71 to 80 percent; 61 to 70 percent; 51 to 60 percent; and 50 percent or below. Oral reading errors were scored in the *Examiner's Booklet: Standard Reading Inventory* during subsequent replaying of the tapes.

Seven separate analyses of variance were computed on the seven types of oral reading errors. The model employed in each case followed a 3 × 6 factorial design with repeated measures across the last factor. Factor A represented the three levels of reading ability: good, average, and poor. Factor B represented the six levels of reading comprehension. Because the B factor involved repeated measures, the Geisser and Greenhouse (*2*) conservative test was employed. If results were significant, two additional analyses were reported. In the case of significant main effects, Scheffé postmortem tests were reported. In the case of parallel profiles of the means of the three reading groups across six levels of reading comprehension (i.e., nonsignificant A × B interaction), a joint test procedure recommended by Geisser and Greenhouse was reported.

## STATISTICAL ANALYSIS AND DISCUSSION

Table 1 summarizes the results of the seven separate univariate analyses. Hypothesis one, that there is no difference among the means of the six comprehension levels with respect to the selected oral reading errors, was rejected for pronunciation errors, mis-

TABLE 1

Summary of Significant Main Effects and A Times B Interaction for the Seven Separate Univariate Analyses of Variance

| Criterion | A | B | A × B |
|---|---|---|---|
| Pronunciation Errors | ** | ** | ** |
| Mispronunciation Errors | | ** | |
| Omission Errors | * | ** | |
| Substitution Errors | ** | ** | ** |
| Addition Errors | | | |
| Repetition Errors | ** | * | |
| Punctuation Errors | | | |

Note: Significance levels reported for B and A × B effect were evaluated by employing the Geisser and Greenhouse conservative test.
* $p < .05$.
** $p < .01$.

pronunciation errors, omission errors, and substitution errors at the .01 level and for repetition errors at the .05 level. There were significant differences found in the means of these errors at the six levels of reading comprehension. The number of pronunciation errors, mispronunciation errors, omission errors, substitution errors, and repetition errors appeared to increase as the level of reading comprehension decreased. This hypothesis was not rejected with respect to addition errors and punctuation errors. These results for the seven oral reading errors apply to the means of subjects from all three reading groups.

Hypothesis two, that there is no difference among good, average, and poor readers with respect to the selected oral reading errors, was rejected for pronunciation errors, substitution errors, and repetition errors at the .01 level and for omission errors at the .05 level. There were significant differences found among good, average, and poor readers with respect to these errors. Good and average readers were significantly different from poor readers. Poor readers made the greatest number of pronunciation errors, omission errors, substitution errors, and repetition errors across the six levels of reading comprehension. This hypothesis was not rejected with respect to mispronunciation errors, addition errors, and punctuation errors. These results cannot be applied to the individual reading comprehension levels.

Hypothesis three, that there is no difference in the shapes of the curves defined over the six levels of reading comprehension for the good, average, and poor readers with respect to the selected oral reading errors, was rejected for pronunciation errors and substitution errors at the .01 level. Only the pronunciation errors and substitution errors analyses showed a significant interaction, a result which implies that the profiles of means for the three reading groups were not the same. The profile of poor readers across the six levels of reading comprehension with respect to pronunciation errors revealed a sharp increase in pronunciation errors as the level of reading comprehension decreased. This sharp increase in pronunciation errors occurred after the poor reader reached the reading comprehension level associated with the instructional reading level. The profiles of good and average readers revealed increases in pronunciation errors across the reading comprehension levels, but these increases were slight in comparison to the poor readers'. The profile of poor readers across the six levels of reading comprehension with respect to substitution errors revealed a sharp increase in substitution errors as the level of reading comprehension decreased. This sharp increase in substitution errors occurred after the poor readers reached the reading comprehension level associated with the questionable instructional reading level (61-70 percent reading comprehension level). The profiles of good and average readers revealed decreases and increases in substitution errors across the reading comprehension levels, but these changes were slight in comparison to the poor readers'. There were no significant differences in the shapes of the curves defined over the six levels of reading comprehension for the good, average, and poor readers with respect to the number of mispronunciation errors, omission errors, addition errors, repetition errors, and punctuation errors. Thus, it was concluded that the shapes of the profiles for the errors were the same. This conclusion, however, does not imply coincidence, and appropriate joint tests were employed. The significance of the appropriate joint tests for profile clusters at the .01 level for repetition errors and the .05 level for omission errors indicated that the vectors of means with respect to these two types of errors for the three reading groups did not come from the same population. Therefore, the profiles were not coincident. Joint tests for profile clusters were not employed in evaluating the implication of coincidence in shapes of mispronunciation error means, addition error means, and punctuation error means because of the nonsignificant difference found in levels of reading ability. The profiles of means for the three reading groups at the six reading comprehension levels with respect to repetition errors and omission errors revealed that the profile of poor readers was different in position, though not in shape, from that of the profiles of good and average readers. The profiles of poor readers revealed poorest performance with respect to these errors across the levels of reading comprehension. The number of errors increased at a much greater rate as the level of comprehension decreased. The profiles of good and average readers revealed significantly better performance with respect to these errors across the six levels of reading comprehension, but the number of these errors also appeared to increase as the level of reading comprehension decreased.

## CONCLUSIONS AND IMPLICATIONS

Based on the statistical results of this investigation, it appears:

1. Pronunciation errors, mispronunciation errors, omission errors, substitution errors, and repetition errors merit consideration as criteria for evaluating a pupil's performance in reading.
2. Though addition errors and punctuation errors have been reported in the literature as significant oral reading errors, their value was not confirmed in this study. These oral reading errors did not discriminate among the six reading comprehension levels defined in this study.
3. The means of good and average readers were significantly different from the means of poor readers with respect to the number of pronunciation errors, omission errors, substitution errors, and repetition errors. Poor readers made significantly more of these kinds of errors than did better readers, even when the reading comprehension levels were similar. If similar levels of reading comprehension are used to define placement levels for good, average, and poor readers, then the number and kind of reading errors expected at the placement levels of poor readers will have to be modified.
4. Good, average, and poor readers were not different with respect to the number of mispronunciation errors, addition errors, and punctuation errors. Although poor readers have been reported (*4*) to make more of these kinds of oral reading errors than good and average readers, this condition was not true for the poor readers in this study.
5. Although the shapes of the profiles for good, average, and poor readers were reported to be alike with respect to repetition errors and omission errors, they were not coincident. The good, average, and poor readers in this study with respect to the discussed oral reading errors came from different populations.

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# COMPREHENSION OF FULL LENGTH AND TELEGRAPHIC PROSE AMONG BRAILLE READERS

*Clessen J. Martin*
*Texas A & M University*

The general purpose of this study was to determine the feasibility of developing telegraphic reading materials. The possibility of developing telegraphic materials was based upon the assumption that written and spoken language contains many words and word sequences which are unnecessary for the comprehension of a message. That is, in the usual message there are words, phrases, and sometimes even sentences which add no further information.

The fact that redundancy is present in language and that Ss are aware of this redundancy has been demonstrated in a number of ways. Redundancy has been demonstrated by requiring Ss to replace missing words in sentences. Morrison and Black (*2*) found that Ss had little difficulty in finding words which were appropriate substitutions for deleted words. Garner (*1*) has presented an excellent review of the language redundancy studies.

The specific goal of this study was concerned with the possibility of modifying braille material so that information input rate could be increased for braille readers. In attempting to accomplish this goal, low information words, phrases, and sentences were eliminated from more traditional prose materials, thereby greatly reducing the total number of braille characters in the telegraphic passages.

## *METHOD*

*Materials.* A fictional story concerning two warring African nations was written in full prose, traditional style, resulting in a 1,620 word passage. In order to operationally define the important information in the passage, the story was written so that the central ideas of the passage were analyzable in terms of basic set relations. Important information was defined as material which described the set relations. Unimportant information was defined as narrative or descriptive material which was unrelated to the set relations. Next, a medium telegraphic condensation of the same story (947-word passage) was written in traditional sentence and paragraph form but with a 42 percent reduction in narrative and background material of the original passage. And finally, a highly condensed version of the story was written in which the total number of words was reduced to 455. The style of this passage was similar to that of a telegram and achieved a 72 percent reduction of the original passage. The following are excerpts from the three versions:

| Traditional Version A | Medium Telegraphic Version B | Short Telegraphic Version C |
|---|---|---|
| In the year 1800 on the continent of Africa, two unfriendly nations existed, the nation of Mambo and the nation of Yam. The Nile River separated these two nations. | In the year 1800 on the continent of Africa, two unfriendly nations existed, Mambo and Yam. The Nile River separated them. | In Africa, in 1800, the Nile River separated two unfriendly nations, Mambo and Yam. |

*Subjects.* A total of 210 braille readers in grades six, seven, eight, and nine were tested. With the exception of 12 subjects, all attended state residential and day school classes for visually impaired children and youth. All subjects had received formal braille instruction for four years or more.

*Procedure and design.* All subjects were assigned to one of the three treatment versions: Traditional (A), Medium Telegraphic (B), and Short Telegraphic (C). Subjects were assigned to the nine groups on the basis of age, IQ, and reading achievement. The objective was to form groups which had comparable means and variances on these three variables. However, for some subjects, information on all three variables was not available. For these subjects, assignment was based upon whatever information was available. The means, ranges, and standard deviations for each of the nine groups on the three variables are presented in Table 3. Three 1 × 9 analyses of variance were performed. The resulting F values were .27 for age, .25 for IQ, and 1.02 for reading achievement. The results indicate that all nine groups were comparable on these three variables.

Within each group assigned to a particular version, there were three subgroups assigned to one of the three recall conditions: set relations, multiple choice, and reconstruction. The general design of the study is illustrated as follows:

Recall was measured immediately after reading the assigned version and again one week later without rereading the passage.

| TREATMENT VERSION | RECALL CONDITION | | |
|---|---|---|---|
| | Set Relations (1) | Multiple Choice (2) | Recon-struction (3) |
| Traditional (A) | A-1 | A-2 | A-3 |
| Medium Telegraphic (B) | B-1 | B-2 | B-3 |
| Short Telegraphic (C) | C-1 | C-2 | C-3 |

Each subject was retested in the same recall condition as the one originally assigned.

### *RESULTS*

Examination of reading rates (wpm) revealed some interesting and unexpected results. The analysis of wpm among the set relation groups revealed that there was no difference in average reading rates between the traditional and medium telegraphic versions (88.86 wpm compared to 75.40 wpm) but there was a significant difference between these two versions and the short telegraphic version (46.53 wpm). Comparison of reading rates among the multiple choice groups indicated no difference between the medium and short telegraphic versions, but both groups read at significantly ($p < .01$) slower rates than the traditional version group. While the $1 \times 3$ analysis of variance was not significant for the reconstruction groups, the nonparametric analyses were. Individual comparisons of the reconstruction data revealed that subjects read version C at a significantly slower rate than version A. Version B was read at an intermediate rate and did not differ significantly from either versions A or C.

The unexpected finding, which was most obvious among the set relation groups, was the marked reduction in reading speed for the group receiving the short telegraphic version. This version was read at approximately one-half the rate of the traditional version. While elimination of much descriptive and narrative material resulted in a significant savings in time, there was a reduction in reading rates for the shorter and informationally more compact version.

Analyses of the multiple choice data did reveal differences among the three treatment versions. For immediate recall, the results of the analysis of variance on the common items (items answered in all three versions) showed no significant difference among the groups. On the noncommon items, however, subjects who read version A performed significantly better than those who read versions B or C. This finding is not surprising since version A contained the answers to the noncommon items whereas versions B and C did not. Moreover, when performance on total items (noncommon and common items combined) was examined, the same differences were found. The differences on the total items were largely due to the superior performance of group A on the noncommon items. It appears that while the information relating to the noncommon items was not essential for a thorough understanding of the story, it was learned and recalled by the subjects.

Analysis of the reconstruction data revealed few significant differences among the three versions. This finding is especially true for the immediate recall data in which a significant difference was found in only one of the 21 dependent variables, that is, the number of noun modifiers. Subjects reading version C used significantly fewer noun modifiers than those reading version A. However, this result is not necessarily indicative of a telegraphic writing among the version C reconstruction. Rather, it is most likely due to the fact that version A contained almost three times as many noun modifiers as version C. The finding that there were no significant differences among the three groups in total number of sentences or average words per sentence would suggest that the version C subjects did not tend to write in a telegraphic manner to any greater extent than the other groups.

For the most part, the results of all three recall conditions revealed little difference among the three versions with respect to the recall (either immediate or delayed) of the essential information contained in the passages. The one exception was the inferior performance of version C subjects on the common multiple choice items during the delayed recall task. However, the performance of the medium telegraphic group did not differ from the traditional group. In fact, none of the individual comparisons of the reconstruction data revealed any significant differences between the traditional and medium telegraphic versions. The differences were consistently between the traditional and short telegraphic versions. the unfamiliar style of the short telegraphic version undoubtedly contributed to these differences.

## *CONCLUSION*

This investigation has demonstrated that it is possible to rewrite traditional materials in such a fashion that low information words, phrases, and sentences can be eliminated without destroying the essential information in the materials. Furthermore, the learning and retention of the important information in such telegraphic materials is in almost all instances comparable to the learning and retention of the same information presented in traditional style. Although these results may have implications for the learning of prose materials by any learner, they suggest that more efficient learning materials may be developed for blind children. One alternative to the relatively slow methods of braille material presentation commonly employed in the education of visually impaired children is the preparation of informationally compact telegraphic materials. Braille material presented in a telegraphic style appears to be at least as efficient as material presented in conventional style and requires less time to learn.

The ultimate application of the telegraphic concept to existing materials is dependent upon the development of objective reduction rules whereby extraneous information may be systematically eliminated from traditional materials. Further research is needed in order to develop such rules. Since most of the recall comparisons showed no significant differences, the preparation of informationally compact telegraphic material may be one alternative to the relatively slow methods of braille material presentation commonly employed in the education of visually impaired children and may provide an approach to the development of a new type of educational materials for sighted children in regular classrooms.

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# DEVELOPING READING STUDY SKILLS IN THE CONTENT AREAS

*Delva Daines*
*Brigham Young University*

Perhaps the most prevalent lack of proficiency in reading is in study skills. One of the major concerns of educators at the junior high school level should be that of overcoming this deficiency. As students progress to more advanced levels of learning, well-developed study skills become more and more essential. Textbook reading demands a variety of skills, and instruction to develop these skills must be provided whenever it is needed by students.

The subject matter teacher is concerned primarily with the content of the materials being read by students and is responsible for assisting students in developing the concepts and skills related to the subject and in developing the skills to gain knowledge independently. However, the subject matter teacher must be concerned with another important facet of student learning: reading study skills. The reading study skills are most efficiently learned within the context in which they are to be used. Such skills should not be taught in isolation. Instead, the text and materials of the content area should be used as a vehicle for the development of the reading study skills. Improving comprehension is dependent upon what a teacher does to improve students' comprehension before reading takes place. Thus, an effective way of teaching subject matter is achieved by using reading study skills.

Each curriculum area has unique goals of instruction in making use of various reading study skills. For the purpose of this paper, the many skills needed by students are grouped into the following classifications: 1) locating information, 2) flexibility of reading purposes, 3) selecting and evaluating ideas, 4) organizing ideas, 5) following directions, and 6) using visual aids.

## *LOCATING INFORMATION*

Junior high school students no longer use a single textbook as their source of information when studying a subject. Instead, they find it necessary to refer to other texts, reference books, encyclopedias, almanacs, atlases, newspapers, and pamphlets. The uses students make of these kinds of materials should be determined by the purposes of their particular assignments. ***The Reader's Guide to Periodical Literature*** should also become a familiar source to junior high students. Therefore, instruction in ways of locating and using sources should be considered as essential as the teaching of subject matter concepts from textbooks.

A student must develop the ability to use a text for independent study. Acquiring this ability involves knowing how and when to use the table of contents, chapter titles, headings, summaries, footnotes, index, glossary, and appendix. Knowing how to use a dictionary, a card catalog, and a book classification system, such as the Dewey Decimal, is an important aid to independent study. Technological aids, such as filmstrips, reading laboratories, records, tape recordings, dial access systems, television, and other self-teaching materials, should be provided; and skill should be developed in their use to facilitate independent inquiry and research by the student.

### *FLEXIBILITY OF READING*

An efficient reader does not read all printed material at a fixed speed. A flexible reader knows what he wants from the printed materials and adjusts his speed to the kind of material being read and to the purpose for which the reading is being done. When an efficient reader reduces his speed, he does so for a purpose. The material and his purpose require him to think more carefully and reflectively than he otherwise would. His concern becomes the rate of comprehending rather than the rate of reading the printed material.

Emphasis on speeding up reading does not increase comprehension. Further, the increase in rate in one type of reading situation is not likely to transfer to any great extent to other types of reading situations. Therefore, the increase in the rate of reading social studies, for example, does not transfer automatically to reading a science text. To gain flexibility in rate of reading the reader must learn to select an appropriate speed for a particular situation and then practice reading at that rate with understanding. This technique requires systematic teacher guidance in various subjects.

A disabled reader should not receive instruction to increase the rate of his reading until the basic reading difficulties have been corrected. If the number of words a student can recognize is limited, his rate of reading and comprehending will be restricted. An adequate sight vocabulary is an essential factor for increasing the rate of reading. The greater the capacity of the reader to grasp verbal concepts and the meanings of words in sentences, the greater is the probability of his increasing his speed and comprehension.

Skimming is considered as a form of rapid reading by which the reader acquires specific kinds of information. There should be a purpose in using the skill of skimming. This skill involves the reader's ability to select relevant ideas and to skip irrelevant ideas according to the purpose for which he is skimming the material. The greater the reader's background of understanding of the concepts contained in the material, the greater is his facility in using the process. Short and simple material should be used when first developing this skill. Longer and more difficult selections can be used as progress is made by the reader.

In scanning, a reader rapidly examines the printed page by letting his eyes scan the page with the purpose of finding an answer to a specific question or to locate a specific date, name, or quotation. Scanning is not accelerated reading but a continual looking, then reading, and then looking again until the desired information is located. Both skimming and scanning are useful skills and should receive greater teaching emphasis by teachers in all content areas.

### *SELECTING AND EVALUATING IDEAS*

Another reading study skill is the selecting and evaluating of ideas. Selection consists largely of identifying significant ideas and relevant detail in paragraphs and in larger units of information. A student's reading is ineffectual if he cannot select the main point and supporting details contained in textbooks and subject-related materials. The purpose in such selection is to determine the essential meaning of the material.

Determination of the main idea is essential if a reader is to interpret and understand what is written. This achievement is based on the reader's accurate comprehension of the word, phrase, sentence, and longer selections. Those who do not ascertain the main idea cannot identify the theme or general notion of the material, cannot understand implied meanings, and have difficulty in summarizing what has been read.

The first step for a student in selecting and evaluating the main thought of a sentence is locating the key words. Then the topic sentence in a paragraph is to be located. The third step is to determine the basic idea in several paragraphs. It is important, however, that the student read the whole article when selecting and evaluating ideas.

A student's ability to paraphrase an author's main thought is an effective criterion by which it can be determined whether the student is able to select and evaluate major ideas. Paraphrasing demands an accurate restatement of what an author has written and an understanding of the parts of a passage which are related to the ideas written by the author. To achieve an understanding of what one reads necessitates that the reader grasp the meaning of ideas as he reads.

Proficiency in selecting relevant details is essential for a student to obtain greater understanding of content material. As a student reads, he should learn to distinguish between relevant and irrelevant detail. It becomes necessary for the student to relate these ideas to each other and to the main idea of the paragraph and the entire selection.

After mastering the selection of main ideas and relevant details, a student should learn to perceive relationships among sentences and ideas, make inferences in classifying ideas, determine cause and effect, make comparisons, make generalizations, and evaluate and make judgments. To engage in a form of critical reading implies a higher level of thinking. Obstacles to critical reading form when a student has the opinion that anything in print is true or if he blindly accepts the writing of an author without evaluation. The facets of critical reading are affected by a reader's experiential background and knowledge. The lack of experiential background and knowledge can be a great barrier to critical reading, and this must be overcome if a student is to understand and evaluate the material being learned.

## *ORGANIZING IDEAS*

A fourth classification of the reading study skills is the organizing of what has been read. The selection and evaluation of main ideas and relevant detail are essential to these study skills. In addition, the reader must be able to determine the relationships among the ideas and know how to make these relationships clear to others. Organizing ideas is accomplished by placing thoughts in relationship to one another in an orderly and systematic form. This skill is different from that of reading to comprehend the relationship of ideas. Organizing ideas consists of arranging in an organized system the concepts gained from reading one or several sources. This skill also includes organizing ideas in levels of importance. Distinguishing these relationships enables a student to outline main and subordinate ideas in a logical order.

Organizing what has been read is essential to learning and remembering what has been read. The reader can use different approaches to achieve this skill. It can be accomplished by previewing, notetaking, outlining, and summarizing. An efficient student will learn to use all of these skills and to select the approach that will assist him to perceive better the relationships among the ideas found in his study of content material.

Previewing what is to be read is an important initial step in reading content material. The reader's rate of reading comprehension and his retention of the material are increased when this process is used before reading. Previewing should be taught as a preliminary step to study in all content fields. An efficient reader previews subject matter material to determine the available information, how it is organized, whether the selection is significant to the reading purpose, and what principal ideas are presented. Practice in learning this skill is best achieved in using textbooks, references, and resource materials. Students need to recognize that previewing subject matter material is a way of becoming acquainted with the text to be read and is different from the actual study of the content.

A student should learn that if notetaking is to serve as an aid to learning, he must focus on the main idea and relevant details of what is being listened to or read and then organize these ideas into a written pattern. The outline is usually recommended as a consistent format for recording information. Charts, diagrams, and illustrations should be considered a part of an outline because these aids frequently show the organization of an entire discussion. A student should review his notes soon after he has written them to help increase his retention of pertinent ideas.

Outlining is closely related to summarizing and is a way of organizing information. When a student develops an outline, he should identify the major idea and show the relation of relevant details to the main thought in a logical, sequential order. It is necessary for a student to understand the organization of material being read to enable him to place ideas in outline form. He must select the essential ideas from the nonessential ideas and organize these thoughts into an outline. Indentation in the outline gives clues to the organization of major and supporting ideas.

Summaries include the main idea and essential facts in capsule form. Summarizing is important in helping a student remember what he has read. It also is important when a student has been reading various sources of materials. When reading literature and social studies, being able to summarize is particularly beneficial.

Summarizing ideas in biology, physics, chemistry, and similar sciences can involve lengthy listing of facts. Using this skill in these science areas may not be so useful to the reader as summarizing ideas in literature and social studies. When a student is preparing for a discussion, a review, or a test, the summarizing of ideas is helpful.

### *FOLLOWING DIRECTIONS*

Directions for completing assignments become more prevalent and complex as students progress through the school program. Many students fail to fulfill assignments because they do not read directions or follow them accurately. Therefore, students should have experiences in following both oral and written directions. Students have the opportunity to learn how to follow directions when they demonstrate the use of an object, perform an experiment, draw charts, classify like and unlike substances, develop a technique for interviewing, make maps, and keep records.

Learning to follow directions should begin with very simple procedures and then progress to something that is more complex. It is often suggested that students be taught to follow directions by beginning with one-step directions and proceeding to two-step directions. Then students may be introduced to three or more simple steps and finally to directions for which the number of steps is not stated explicitly.

Reading to follow directions necessitates placing details in sequential order. Before placing details in sequence, students should understand all of the requirements of a task prior to beginning. If each step is considered carefully before following it, students will encounter more success in their preparation of assignments and their performance on examinations and in demonstrating experiments. A teacher can help students learn this reading study skill by selecting and formulating needed directions from the content of subject matter. Checking the end product is an effective way for students to determine if directions have been read and followed sequentially.

### *USING VISUAL AIDS*

The use of graphic and tabular aids is the sixth and last study skill to be presented. In the content areas, graphic aids such as maps, charts, graphs, tables, diagrams, pictures, and cartoons aid the interpretation and understanding of reading materials. The use of these aids can help in synthesizing facts and details into usable patterns of knowledge for students. Graphic aids can contribute toward helping students apply the information gained in reading and enhance their achievement in a subject.

Instruction in reading and in interpreting graphic materials is best achieved when such instruction is an outgrowth of regular reading activity in the content areas. Reading and interpreting graphic and tabular aids require the ability to understand what is stated directly and to be able to understand what is implied in a text. One of the best ways to teach these reading study skills is to have the students construct tables, graphs, diagrams, and cartoons of their own on the basis of facts that they have collected in their study of a particular topic. Properly used, these aids provide a major means of supplementing the experiences gained through reading.

The teacher must begin with easy, concrete experiences and then continue to more difficult, abstract learnings when visual aids are used as supplements for helping students learn subject matter. Teachers must also teach students how to use the symbols and abstract representations which depict features recorded on graphic and tabular aids, particularly maps. Furthermore, when students interpret graphic and tabular aids, they become involved in their study of subject matter and they learn to perceive relationships of ideas.

Visual aids which appear in reading material are to be utilized as tools for greater understanding of the context. As the vocabulary and concept load increases in complexity, the need for guidance in reading the associated aids also increases. Thus, visual aids serve as tools in teaching critical thinking skills.

### *SUMMARY*

In summary, there is a definite need for helping junior high school students utilize the various reading study skills as a means of better understanding the different content areas and in becoming more independent learners of subject matter. The teachers of the content areas, by using the text and subject-related materials, are in the best position to teach these functional skills which can contribute to the success of students in the content areas.

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# USE OF CONTEXT CLUES IN SCIENCE AND SOCIAL STUDIES

*Arthur V. Olson*
*Georgia State University*

Educators and researchers in the fields of reading and linguistics have emphasized the importance of a reader's ability to effectively use context clues as an aid to word recognition. It has been felt that the use of contextual aids is perhaps the reader's most important skill, for it is a rapid technique for immediate word recognition and acts as a check on the application of all the other recognition techniques. Linguists have further pointed out that ". . . words shift their meanings under the pressure of their contexts, and that it is important to see why words change meanings with their settings" (*7*).

Much of the research in the area of use of context clues to determine the meaning of an unknown word has been concerned with classifying the types of context clues, i.e., the categorization of responses of readers as to how they identified an unknown word. The purpose of this study was to analyze the effectiveness of sixth grade pupils' ability to use context clues as a means of identifying unknown words. Specifically, the study attempts to answer these two questions:

1. How effective are sixth grade pupils in their ability to use context clues in science and social studies reading material?
2. What types of context clues are the subjects most frequently using in order to identify the meanings of unknown words?

## *RELATED RESEARCH*

Reading authorities and linguists have stated that context is an important determinant of word meaning and that the use of context clues should be a part of direct reading instruction. Attempts have been made to classify types of contextual aids that are used by readers in order to determine the meaning of unknown words in context.

Artley and McCullough (*2*, *5*) both devised classification schemes, but the schemes were not directly based on research evidence.

Seibert (*8*) asked college students to replace blanks in passages with words of the appropriate meaning, but he did not ask them to explain how they were making use of the contextual aids.

Deighton (*3*) devised a classification based on passages he had studied for possible contextual aids, but he collected no data from readers as to how they were using context.

Ames (*1*) sought to determine from the verbal responses of mature readers the types of contextual aids they were using in replacing nonsense words in passages with words of appropriate meanings and then to classify these contextual aids into a classification scheme.

In a modified replication of Ames' study using his classification scheme, Quealy (*6*) found that Ames' classification scheme, developed with graduate students, is also valid for senior high school students; that intellectual ability, as measured by standardized tests, is highly related to effective use of contextual aids; and that the form classes to which words belong should be considered in designing instructional material using contextual aids.

Other early researchers were also aware of the importance of contextual aids. Thorndike, as early as 1917 in a classic study on reading as reasoning, stated that "a word may produce all degrees of erroneous meaning for a given context, from a slight inadequacy to an extreme perversion."

Strang (*9*) conducted an exploratory study of the characteristic reactions of high school and college students to unfamiliar words in context. She concluded that the students had only a vague notion of the types of context clues or techniques for using them to ascertain the meaning of a word.

Werner and Kaplan (*11*) investigated the processes underlying acquisition of word meaning through context. Among their results they found that "correct responses were closely related to the conventionalization of the word meanings used in context." Thus, if a child gave a correct meaning for an artificial word, it showed his power of logic, his experience, and his mastery of the English language.

McCullough (*4*), from a review of research on word study in context, concluded that pupils must be helped to understand that context clues extend beyond the sentence in which the unknown word appears.

## *METHODOLOGY*

Thirty grade six male and female students from three white, middle-class urban schools served as subjects for the study. No students whose reading achievements were below fifth grade level in the fall of the year, as measured by the Stanford Achievement Test, Form W, were selected to serve as subjects. Ninety students from the three schools were screened to determine a population of students who missed 50 percent or more of the social studies and science words on a prevocabulary test constructed from passages to be used later as a measure of context reading. The prevocabulary test included all the words that the subjects were asked to identify on the actual tests utilizing context clues. In order to select the final population of thirty children, the examiners chose ten students from the group who missed 50 percent or more of the words to serve as the subjects for the testing on the use of context clues. The average chronological age of the thirty subjects was 140 months with a standard deviation of 6.76 months. The subjects' intellectual abilities ranged from IQ 87 to IQ 133 with a mean of 102 as measured by the Otis-Lennon Mental Maturity Test.

### *Testing Instruments Used in the Study*

Instruments used in this study were

1. Otis-Lennon Mental Maturity Test
2. Stanford Achievement Test, Form W, Intermediate Battery
3. Prevocabulary Screening Test
4. Vocabulary-Contextual Aids Test

### *Prevocabulary Screening Test*

The Prevocabulary Screening Test was used to determine knowledge of meanings of words selected from science and social studies articles in *Reader's Digest,* Reading Skill Builder, Grade Six Reading Level, Part Three, pages 31-36 and 79-85, 1960. The pupils were to select the correct meanings of the words from the four choices next to each of the 75 words tested. The correct and incorrect item choices were determined by the examiners with regard to corresponding parts of speech and the dictionary definition. The pretest measured in isolation all the vocabulary words that were to be used on the contextual tests in which the subjects had to determine the appropriate meanings of words from the context.

### *Vocabulary-Context Aids Test*

The Vocabulary-Context Aids Test measured how well the children used six types of designated context aids to determine the meanings of 25 unknown words in science and social studies articles from the *Reader's Digest,* Reading Skill Builder. The 25 words selected were those words missed by 50 percent of the students on the screening vocabulary test previously described. The six types of context clues are from the Strang, McCullough, and Traxler classification scheme (*10*).

## *PROCEDURES OF DATA COLLECTION*

Each of the 30 subjects was tested individually on two reading selections. The science selection, "The Atomic Clock," and the social studies selection, "Voices Across the Land," were taken from the ***Reader's Digest,*** Reading Skill Builder, Book Six. Each subject read the two selections silently. The examiner asked the subject to identify the meanings of the preselected words and then asked the question, "How did you know what the word means?" Verbal responses were recorded by each examiner. A tabulation of the number of correct and incorrect responses was made, and the types of context clues used by the subjects were categorized according to Strang, McCullough, and Traxler's classification. Prior to the testing of the pupils, the examiners classified the 25 test words used in the article according to the type of context clue being utilized as indicated by the aforementioned classification scheme.

## *TREATMENT OF THE DATA AND RESULTS*

In answering the question as to the ability of sixth grade pupils to effectively use context clues in social studies and science materials, Table 1 shows that 13.3 percent of the subjects were able to correctly identify 75 percent or more of the meanings of the 25 words and that 96.7 percent of the subjects identified at least 50 percent of the words. Since all correctly identified at least 48 percent of the words, it appears that the subjects were able to effectively use context clues to derive the meanings of previously unknown words as measured by the prevocabulary test.

Of the six types of context clues—i.e., direct explanation (#1), experience or familiar expression (#2), comparison and contrast (#3), synonym or restatement (#4), summary (#5), and reflection of mood or situation (#6)—Table 2 indicates that clue #2 was the one most frequently indicated by the subjects as the context clue with which they determined the meaning of an unknown word in a sentence. The second most frequently used clue by the students was direct explanation. Reflection of mood or situation was the next in frequency of student use. It is interesting to note that clue #2, the one most frequently used by the subjects, was also the clue that teachers most often expected the pupils to use

TABLE 1
Correct and Incorrect Responses on the Vocabulary-Context Aids Tests (N = 30)

| Subject | No. Correct | No. Incorrect | No Response | % Correct |
|---|---|---|---|---|
| 1 | 20 | 5 | | 80 |
| 2 | 17 | 8 | | 68 |
| 3 | 15 | 10 | | 60 |
| 4 | 17 | 8 | | 68 |
| 5 | 16 | 9 | | 64 |
| 6 | 15 | 10 | | 60 |
| 7 | 20 | 5 | | 80 |
| 8 | 16 | 9 | | 64 |
| 9 | 18 | 7 | | 69 |
| 10 | 17 | 8 | | 68 |
| 11 | 15 | 9 | 1 | 60 |
| 12 | 14 | 11 | | 56 |
| 13 | 15 | 10 | | 60 |
| 14 | 18 | 7 | | 72 |
| 15 | 14 | 11 | | 56 |
| 16 | 13 | 12 | | 52 |
| 17 | 18 | 7 | | 68 |
| 18 | 12 | 13 | | 48 |
| 19 | 20 | 5 | | 80 |
| 20 | 14 | 11 | | 56 |
| 21 | 18 | 7 | | 68 |
| 22 | 16 | 8 | 1 | 64 |
| 23 | 22 | 3 | | 89 |
| 24 | 17 | 7 | 1 | 68 |
| 25 | 17 | 8 | | 68 |
| 26 | 15 | 10 | | 60 |
| 27 | 15 | 9 | 1 | 60 |
| 28 | 16 | 9 | | 64 |
| 29 | 16 | 9 | | 64 |
| 30 | 17 | 8 | | 68 |

based on the frequency of occurrence of such clues in the passages. Clue #6, according to teacher expectation based on the types of words in the passages, was foreseen to be used more often by the students than clue #1. However, the reverse of this expectation was indicated by the students' responses. It should further be considered that the teachers' expected responses did not take into account the total number of incorrect responses. Out of the total number of responses given (750), 257 or 34 percent of the responses were incorrect.

The least used clue to identify unknown words, as indicated by both examiners and subjects, was clue #5 (summary). This clue was given 0 expectance by the examiners and was utilized in ten

TABLE 2
TEACHER EXPECTATION OF CLUE USE VERSUS NUMBER OF TIMES CLUES USED BY SUBJECTS

| Type of Clue | No. of Times Expected by Teachers | No. of Times Used by Subjects |
|---|---|---|
| #1 (direct expl.) | 120 | 93 |
| #2 (experience) | 330 | 276 |
| #3 (comparison & contrast) | 60 | 18 |
| #4 (synonym or restatement) | 60 | 29 |
| #5 (summary) | 0 | 10 |
| #6 (reflec. or mood or sit.) | 180 | 63 |
| Incorrect responses | 0 | 257 |
| No response | 0 | 4 |

Note: Expectancy and use of clues determined by multiplying the number of times a clue was used in the passages by the number of students. Ex: clue #1 was used, as expected by the examiners, 4 times in the passages. Four multiplied by the number of students (30) gives 120.

instances by the subjects. Clue #3 (comparison and contrast), the second least used clue, was given a higher expectancy rate of use by the examiners. Table 3 presents the overall percentages for the expected clue to be used according to the examiners versus the times such clue was actually used by the subjects.

The subjects used the expected clues as indicated by the examiners 32 percent of the time. Although the overall correspondence of expected and used clues was 32 percent, this finding again does not take into account the 34 percent of incorrect responses.

In discussing the overall findings, it should be considered that the instrument did not provide for the maximum use of all types of context clues. This fact may be due to the type and level of reading materials that were used in the study. Further, the types of clues available to determine the words were based on the subjective evaluation of the examiners according to the Strang, McCullough, and Traxler classification scheme. Therefore, the examiners' classification as to expected clues was the only criteria used to determine the type of clue to be used by the subjects.

Table 4 presents the overall results of the study as to the number and percentage of times each type of context clue was used by the subjects.

## *CONCLUSIONS*

The data analyzed have yielded information from which the following conclusions may be drawn:

1. 13.3 percent of the subjects correctly identified 75 percent or more of the meanings of the 25 words in context.

TABLE 3
EXPECTED CLUES ACCORDING TO EXAMINERS VERSUS NUMBER OF TIMES USED BY SUBJECTS

| Word | Clue Expected by Examiners | % of Times Used by Subjects |
|---|---|---|
| Splicing | #2 | 7 |
| Hoists | #2 | 20 |
| Million | #2 | 63 |
| Via | #6 | 43 |
| A.T. & T. | #1 | 73 |
| Monopoly | #3 | 3 |
| Object (verb) | #4 | 37 |
| Practically | #3 | 57 |
| Efficiency | #6 | 23 |
| Dimensions | #6 | 30 |
| Geiger Counter | #2 | 30 |
| Atomic | #2 | 17 |
| Radioactive | #2 | 23 |
| Fascinating | #6 | 10 |
| Universe | #2 | 80 |
| Lotus | #1 | 73 |
| Cosmic Rays | #2 | 40 |
| Nitrogen | #2 | 63 |
| Absorb | #6 | 27 |
| Carbon dioxide | #2 | 70 |
| Reveal | #2 | 57 |
| Contribution | #6 | 3 |
| Civilization | #1 | 10 |
| Crude | #1 | 13 |
| Substance | #4 | 40 |

2. 96.7 percent of the subjects identified at least 50 percent of the words in context.
3. All subjects correctly identified the meanings of at least 48 percent of the words in context.
4. Context clue #2 or experience or familiar expression was the clue most frequently used by the subjects to determine the meanings of unknown words in context.
5. Context clue #5 or summary was the least frequently used clue by the subjects.
6. 32 percent of the time, subjects used the clues that the examiners had expected them to use based on the types of words used in the passages.

### *EDUCATIONAL IMPLICATIONS*

It appears from the results of this study that generally the subjects were able to use context clues effectively to determine the

TABLE 4

NUMBER AND PERCENT OF TIMES CLUES USED BY SUBJECTS AS COMPARED TO THE EXPECTED CLUES

| Word | Expected Clue | Direct | | Exp. | | Comp. & Contrast | | Syn. | | Summary | | Roll of Mood | | Incorrect Responses | | No Responses | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | #1 | % | #2 | % | #3 | % | #4 | % | #5 | % | #6 | % | | % | | % |
| Splicing | 2 | 0 | 0 | 2 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 28 | 93 | 0 | 0 |
| Hoists | 2 | 11 | 37 | 6 | 20 | 0 | 0 | 0 | 0 | 1 | 3 | 2 | 7 | 10 | 33 | 0 | 0 |
| Million | 2 | 0 | 0 | 19 | 63 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 37 | 0 | 0 |
| Via | 6 | 2 | 7 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 43 | 14 | 47 | 0 | 0 |
| A.T. & T. | 1 | 23 | 73 | 4 | 13 | 0 | 0 | 1 | 3 | 0 | 0 | 2 | 7 | 0 | 0 | 0 | 0 |
| Monopoly | 3 | 0 | 0 | 3 | 10 | 1 | 3 | 0 | 0 | 0 | 0 | 2 | 7 | 23 | 77 | 1 | 3 |
| Object (verb) | 4 | 1 | 3 | 17 | 57 | 0 | 0 | 11 | 37 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 0 |
| Practically | 3 | 3 | 10 | 8 | 27 | 17 | 57 | 0 | 0 | 1 | 3 | 0 | 0 | 1 | 3 | 0 | 0 |
| Efficiency | 6 | 2 | 7 | 1 | 3 | 0 | 0 | 1 | 3 | 0 | 0 | 7 | 23 | 19 | 63 | 0 | 0 |
| Dimensions | 6 | 0 | 0 | 6 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 30 | 14 | 47 | 1 | 3 |
| Geiger Counter | 2 | 4 | 13 | 9 | 30 | 0 | 0 | 0 | 0 | 5 | 17 | 0 | 0 | 11 | 37 | 1 | 3 |
| Atomic | 2 | 0 | 0 | 5 | 17 | 0 | 0 | 2 | 7 | 0 | 0 | 0 | 0 | 23 | 77 | 0 | 0 |
| Radioactive | 2 | 2 | 7 | 7 | 23 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 19 | 63 | 1 | 3 |
| Fascinating | 6 | 1 | 3 | 20 | 67 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 10 | 6 | 20 | 0 | 0 |
| Universe | 2 | 0 | 0 | 24 | 80 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 20 | 0 | 0 |
| Lotus | 1 | 22 | 73 | 3 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 17 | 0 | 0 |
| Cosmic Rays | 2 | 5 | 17 | 12 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 12 | 40 | 0 | 0 |
| Nitrogen | 2 | 2 | 7 | 19 | 63 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 17 | 4 | 13 | 0 | 0 |
| Absorb | 6 | 0 | 0 | 19 | 63 | 0 | 0 | 1 | 3 | 0 | 0 | 8 | 27 | 2 | 7 | 0 | 0 |
| Carbon dioxide | 2 | 5 | 17 | 21 | 70 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 3 | 10 | 0 | 0 |
| Reveal | 2 | 2 | 7 | 17 | 57 | 0 | 0 | 0 | 0 | 1 | 3 | 5 | 17 | 5 | 17 | 0 | 0 |
| Contribution | 6 | 1 | 3 | 19 | 63 | 0 | 0 | 0 | 0 | 1 | 3 | 1 | 3 | 8 | 27 | 0 | 0 |
| Civilization | 1 | 3 | 10 | 16 | 53 | 0 | 0 | 1 | 3 | 0 | 0 | 1 | 3 | 9 | 30 | 0 | 0 |
| Crude | 1 | 4 | 13 | 7 | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 7 | 17 | 57 | 0 | 0 |
| Substance | 4 | 0 | 0 | 11 | 37 | 0 | 0 | 12 | 40 | 0 | 0 | 0 | 0 | 7 | 23 | 0 | 0 |
| Total | | 93 | | 276 | | 18 | | 29 | | 10 | | 63 | | 257 | | 4 | |

meanings of unknown words in context. When these same unknown words were previously presented to the subjects in isolation on the prevocabulary test, many of the words were missed by the same subjects who responded correctly to their meanings on the contextual aids test. Therefore, the ability to use context appears to be a powerful aid for the reader in determining the meanings of unknown words in context.

The results of the study also point up the importance to the reader of having an adequate background of experiences to aid him in determining unknown word meanings. Since this type of context clue most often appeared in the reading material and was most often used by the subjects, its persuasiveness and usability must be noted. Having the concepts and experiences to back up the topic of the reading material may perhaps be the most important type of contextual aid available to the reader. Therefore, instructionally, experiences and concepts exist to some degree in the reader's cognitive domain before the reading material may become meaningful to him. Teachers must, therefore, not assume that the students have a priori the necessary concepts and experiences dealing with a certain science or social studies topic but must first teach to those concepts before maximum meaningful reading can be achieved.

Further, since context clues appear to be such a help to the reader, giving pupils specific instruction and practice in how to use a variety of context clues might further facilitate handling of unknown words in context. The overall results of this study indicate that intermediate pupils can and do use contextual aids, but greater instructional emphasis in this area might increase their abilities for maximum effectiveness in meaningful word recognition.

Considering the results of this study, further research with subjects of different ages, abilities, and socioeconomic status would seem justified. Future research might also deal with different types of reading material, varying the style, complexity, and topic of the passages in order to see if different types of contextual aids are used in varying degrees in the different materials. Parts of speech might be another factor in determining the types and complexity of context clues that a reader uses.

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# USING SOCIAL STUDIES CONTENT TO DEVELOP READING SKILLS

*Jean E. Robertson*
*University of Alberta*

One concern of reading teachers is that elementary school pupils be able to read a wide variety of social studies materials well, and one way to help ensure that they can is to use social studies content to develop reading skills.

A welcome trend in recently published materials for developmental reading programs in elementary schools is the inclusion of a wide variety of types and content of materials. In years past, basal reader materials presented teachers and pupils with an overwhelming quantity of narrative, but now selections employ additional literary forms in many fields of writing. These selections then become vehicles for reading skill development and more accurately reflect problems of language, thought, and culture that pupils face. However, many teachers do not use newer reading materials, and the problems of preparing young people to read social studies material may remain.

A number of alternatives are open to reading teachers, and choices depend upon curricula, teaching assignments, and patterns of school organization. Despite our mental assent to the belief that reading is a means to an end and not an end in itself, our daily schedule may be such that the reading and social studies periods are so clearly differentiated that pupils are not so aware as they should be that reading is a chief media for learning and that their conscious transfer of reading skills to social studies content can be advantageous.

To effect this awareness some teachers may plan to take social studies materials into the reading classes as needed and use them there directly as vehicles for reading skill development. The materials could be those used by the students currently or alternate materials of similar nature. The lesson objectives would stress pupil awareness of particular types of problems in the reading materials and in learning how to deal with them. For example, if the teacher was focusing on the problems of comprehending definite and indefinite time expressions, the lessons would focus on the identification of these expressions, the teaching of pupils to combat their reading problems with them, and on giving practice activities. The message of the passage would not be neglected, but in this lesson the major thrust would not be to develop certain understandings as are usually set by social studies teachers.

Other teachers may prefer to incorporate in their social studies classes an allotted time in which the teaching focus would be upon the reading problems of the social studies materials.

The particular organizational pattern is secondary to the need for teachers to focus on reading problems students have with social studies material so that students are made aware of these problems and how to overcome them. Teaching reading directly, using social studies materials rather than an indirect approach, is the point for consideration. The reading problems of social studies pupils and their use of these materials to attain objectives of social studies curricula are both of sufficient importance to be given separate and direct attention. Eventually the reading problems should be overcome at which time the entire attention should be upon the social studies communication.

The concern then is that pupils be more efficient readers of social studies materials, and the assumption is that it can be profitable for teachers of reading and/or social studies to use social studies content to develop reading skills.

Three problems will be discussed:

1. There is a wide variety of reading materials written in different centuries by authors using English as it was spoken and written in their time and relating their experience from life as it was then. What are some of these problems?
2. The developmental reading program is usually the main responsibility of reading teachers working individually or in teams, but the functional reading program is shared by many people who support reading teachers. What should be shared?
3. Even the most cursory look at social studies curricula, such as the Taba Social Studies Curriculum (*1*), reveals a wide range of behaviors social studies teachers desire in pupils. The methods employed by reading teachers should be in harmony with these behaviors. In essence, do we practice in reading instruction what we preach in social studies classes?

In the course of a year's work in social studies, centuries are spanned, from the progress of early explorers of land and water masses to present day investigators of problems of modern city living or visits to the moon. The prospects for pupils are delightful but demanding. Our English language continually changes, and modern technological processes, while making available first-hand accounts of life long ago, also present vividly the views of citizens on problems today. Confronted with this wide range of writing, readers are expected to move from one piece of writing to another with comparative ease and with considerable independence. They may not, though, without additional definite teaching from reading teachers.

Two short selections from different sources will identify possible types of reading problems. The first selection (*4*) is a first-hand account of the adventures of a fur trader who explored widely in the Canadian northwest between the conquest of Canada by the British and the American Declaration of Independence. The second is a recent newspaper account (*7*) of the conflict of an Edmonton community with city council and with developers who wanted to build a $14 million apartment complex on land set aside for community recreation in an area originally zoned for single family dwellings. These selections are used in the middle grades in social studies units.

Henry (*4*) writes:

> Our march was performed at a quick pace, in the track of the messengers. *All the fore part of the day* escaped, without discovering to us a single wood, or even a single twig, with the exception of a very small island, lying *on our right;* but, *at four o'clock in the afternoon,* we reached a little scrub, or bushy tract, on which we encamped. We were *at no great distance* from the village; but the Indians as is their custom delayed their entry *till the morning.*
>
> *On the twelfth, at ten o'clock in the forenoon,* we were in sight of a wood or island, as the term not unnaturally is, as well with the Indians as others: it appeared to be *about a mile and a half long. Shortly after* we observed smoke rising from it, and were informed that it was the smoke of the village. The morning was clear, and the sun shining. *At eleven o'clock,* two fresh messengers came from the village. . . .

Definite and indefinite time and spatial expression in the passage are representative of those found in abundance in social studies reading materials. Although philosophers have grappled with problems of space and time for centuries (*6*), temporal and spatial knowledge is required of pupils so they can conduct their personal and social lives in keeping with our conventions. Research (*1, 8*) gives evidence that comprehension problems often linger to adult years. What are some of the problems, and why would they cause reading problems for pupils?

| | Definite Expressions | Less Definite Expressions | Indefinite Expressions |
|---|---|---|---|
| Involving Time | —at four o'clock in the afternoon<br>—on the twelfth, at ten o'clock in the forenoon | —all the fore part of the day<br>—till the morning | —shortly after |
| Involving Space | —on our right | —about a mile and a half long | —at no great distance |

Jarolimek and Foster (5) found that fifth grade children misunderstood 39 percent of their items which employed definite time expressions and 62 percent of the items using indefinite time expressions. Part of the problem appears to be the inability of readers to use contextual clues to make the indefinite time expressions more definite and thereby more understandable. In the foregoing passage "shortly after," when compared to the contextual definite time clue "on the twelfth, at ten o'clock in the forenoon" with a previous reference three pages back to "on the sixth of February 1776," becomes a time between ten o'clock and eleven o'clock on the morning of February 12, 1776. Discussions with young readers to help them develop their abilities to use these contextual clues are helpful.

The use of "fore" and the unusual phrasing of "all the fore part of the day escaped, without discovering to us a single wood . . ." represent changes in expression during the past two centuries and show the needs of pupils to have practice in using both the dictionary and the contextual clues of the passage to gain the sense of the passage.

The use of "island" to mean a grove of trees resembling an island in position and isolation is still noted in *Webster's International Dictionary*. Pupils benefit from discussion of such vocabulary problems.

In contrast to our custom which does not require us to delay our arrival at our destination "till the morning," it was the custom of the Indians and provides a clearly stated clue for the reader in this passage reflecting the Indian culture of those times. Sensitivity to different approaches of living and their acceptance can be greatly assisted if young readers are taught to pick up these contextual clues marked so definitely in this selection by typographical markings.

Space does not allow elaboration of other reading problems; but when reading teachers instruct directly from social studies materials being used by the children, they cannot help but make pupils more aware of the potential problems there.

Architectural and educational planning have brought both professional and nonprofessional people into closer touch with more children as they learn. Open areas in schools with libraries centrally located within them bring pupils and librarians together hourly. Contact with resource people in the seeking of solutions to contemporary problems requires children to know how to record and organize information collected in the school and elsewhere. Individual student records often are parts of a larger report, and as such must be shared through the medium of oral reading. Whatever the learning situation, reading at work is often a responsibility shared with many people. Problems can arise if careful planning does not allocate teaching responsibilities. In reading, the teaching of work study skills so vital to independent pupil study may not be taught so soon or so well as needed.

When discussing the reading problems of pupils in social studies with specialists in that area, a copy of a grade six social studies unit prepared by undergraduate students in teacher education was acquired. The problem, a current vital urban concern, was to attempt to find out whether a $14 million apartment complex should be built in an area of the city zoned for one family dwellings and on land set aside for additional community recreation. A wide variety of reading materials were to be collected by the pupils, among them the appropriate newspaper accounts of the fight between the community of Lynnwood residents, the developers, and the city officials.

*The Edmonton Journal* (7) reports:

> A city bylaw and regulation which approved a $14 million apartment complex in the Lynnwood areas were ruled invalid by Mr. Justice W. R. Sinclair Thursday. The ruling is a temporary victory for the Lynnwood Action Committee, representing about 1,100 residents in the area opposed to the construction of the 667-unit development—backed by Famous Players—on the site of the old Starlite Drive-in-Theatre.
>
> An application on behalf of the developers to have the land zoned R3A, allowing a somewhat similar, if modified, venture to go on the site, is expected to be made to city council at one of its next two meetings.
>
> If such a zoning is approved for the project, council will not

> be able to make as many demands of the developers regarding amenities, and the end result could be less acceptable to Lynnwood residents than the original proposal was.
>
> At any rate, construction of the complex has been delayed by the decision for at least two months.
>
> The LAC hopes in the interim. . . .

The study unit was designed primarily for pupils in Lynnwood or in adjacent areas, pupils whose community recreation park area was being taken from them, so their interest would be understandably keen. In the unit the various groups which they were expected to contact, the materials to read, the people to interview, and the reports to be made were carefully set out. At each step reading and writing skills of many different kinds were required of the pupils, and among the assumptions was this statement:

> We are assuming that the children have developed, to a degree, skills such as the use of the library card catalogues, etc. Thus specific lessons are not laid down in attempt to directly teach these skills. However, they are listed under our skill objectives since these skills would hopefully be further developed indirectly by the children in preparing materials for their group projects. The teacher would be available to give help where needed.

No one would deny that pupils gain desirable insights as they work singly and in groups with citizens concerned with this problem; but, as reading teachers, some uneasiness about the assumptions made regarding the work study skills pupils have is felt. Reading programs attempt to lay a firm foundation, but often lack of time prevents adequate development of skills. Concern is expressed again that if pupils are to profitably participate in social studies units of this nature, additional direct teaching of work study skills and supervised practice of them are necessary. Teachers of both social studies and reading need more time to plan how to share the responsibility between them (if one teacher does not teach both subjects) and with many supporting personnel, particularly librarians.

A question of consonance is our third problem. Taba's *Social Studies Curriculum* identifies key concepts such as those of interdependence and tradition as being treated repeatedly throughout grades one through eight (*2*):

> All persons and groups of persons depend upon other persons and groups for satisfaction of needs.
>
> Societies and the groups and individuals within them tend to retain many traditional values, attitudes, and ways of living and dealing with current problems, whether or not that behavior is appropriate.

Is it reasonable to advocate more directed teaching of reading skills using social studies content? Can there be a harmonious teaching of the two? That is, is reading taught in such a way that the key concepts of social studies education are supported, or are our instructional procedures examples of inappropriate behavior? The area of teacher behavior in reading classes will illustrate the point. Guszak (*3*) in stating that the expenditure of nearly seventy of a hundred questions in the literal comprehension area may be justified, added that the involvement of the literal comprehension questions with retrieval of trivial factual makeup of stories was unjustified. He added that teachers should require children to support value statements, a practice which he found infrequently in the reading groups. If pupils are to comprehend social studies reading material from the past or the present, they must be concerned with the basic understandings of the communication in print. Readers of the material should be able to detect in their classes the interdependence of teachers of reading and social studies. How regrettable it will be if, on the other hand, teachers of reading portray inappropriate behavior and persist in it even after having been alerted to shortcomings and if our reading lessons are taught in isolation protected from basic issues of living by a stout shield of trivial questions.

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# IMPROVEMENT OF CRITICAL READING BY SELF-INSTRUCTION

*Francis X. Ferris*
*Spencerport, New York, Central School*

## *THE PROBLEM*

Although the ability to read critically has long been recognized as a prime educational objective and although educational researchers during the past thirty years have focused on this important skill, relatively few studies have served to point the way toward more effective programs at the secondary level.

A noteworthy exception is the classic study of Glaser (*1*), who demonstrated that instructional materials and techniques could be designed to improve the critical reading skills of high school seniors. Though there have been numerous articles on critical reading, they have been of limited value to the teachers and administrators charged with the responsibility of developing programs for improving these important higher level skills. In summing up upper level reading instruction in the sixties, Robinson (*4*) states that ". . . it is apparent that few innovations or marked changes have occurred in reading instruction beyond the primary grades," and Huus (*3*) concludes that ". . . the literature provides few guidelines and little assistance for developing instructional procedures."

The importance of the task and the lack of innovations in reading instruction at the secondary level strongly suggest that new and different approaches be explored. The introduction of self-instruction in the form of programed materials in the early sixties and their successful use in a variety of instructional situations suggest their possible use for improving critical reading skills.

### *Purposes*

The main purpose of this experimental study was to investigate the effectiveness of a self-instructional approach designed to help high school students improve their critical reading skills. To evaluate this purpose, data were obtained and analyzed in four areas: 1) critical reading, 2) general reading (vocabulary, comprehension, and rate), 3) subject matter achievement, and 4) attitudes. The second major purpose was to determine the type of student—

superior, above average, or low average—for which a self-instructional approach is most effective. A third purpose, ancillary to the two main purposes, was twofold: 1) to explore the feasibility of incorporating self-instruction into the regular classroom and within the existing curriculum and 2) to evaluate the self-instructional program developed for the purposes of this study.

### *Definition of Terms*

*Self-instruction* is defined as an instructional approach that actively and responsibly involves the student in his own learning activities. Characteristically it allows the student 1) to proceed at his own pace through a learning sequence, 2) to select his own instructional media or pattern, and 3) to participate in his own assessment. Self-instruction, hereafter referred to as S-I, is illustrated best, perhaps, in the form of programed learning wherein the student interacts with the materials with a minimum of teacher assistance.

*Critical Reading,* in terms of the underlying thought processes, involves reaction to facts and/or ideas in relation to standards—convergent thinking. Gray (2) uses the term "thoughtful reaction." Its complexity forestalls a mere listing of skills that are labeled "critical reading skills." Rather in the words of Russell (*5*) it is the ". . . process of examining both concrete and verbal material in light of objective evidence, comparing the object or statement with some norm or standard, and concluding or acting upon the judgment made."

*Regents English* is an administrative term used in New York State to designate those students who follow the state recommended English syllabus. Typically regents classes include students with a broad spectrum of abilities ranging from approximately 90 to 130+ as measured by the Otis-Lennon Mental Ability Test. These students comprise approximately 70-80 percent of the secondary school population.

## *THE METHOD*

### *Population and Sample*

The research for this study was conducted in two suburban high schools in the Rochester, New York, area at the beginning of the spring semester of the 1968-1969 school year over a six-week period. The subjects were 99 eleventh graders who had been randomly assigned to four English Regents classes. Two of the classes (N-56) served as the experimental group while the other two (N-43) served as the control. Within each school the decision whether a class was to be experimental or control was decided by flipping a coin.

### *Independent Variable*

A self-instructional program consisting of an introduction and six units was developed to teach the following critical reading skills and attitudes: nature and importance of a critical attitude, detecting propaganda devices, identifying and classifying elements of style, detecting fallacies in logic, identifying authors' purposes and points of view, and evaluating sources of information.

Over a six-week period, objectives, reading content, and scheduled time were held constant for both groups. Thus the main difference between the control and experimental groups was the instructional procedures used. The teachers directed the learning activities of the students by means of lecture and discussion in the control groups while in the experimental classes all instruction was presented by means of the S-I units. As counteractions to possible Hawthorne Effect, the study was run at the beginning of the second term when new units and approaches are usually introduced. A single teacher in each school instructed experimental and control sections, and the researcher divided a regular schedule of visits equally among the four groups.

### *Instruments and Statistical Analysis*

Achievement in critical reading was measured with two forms of the Watson-Glaser Critical Thinking Appraisal, and the Nelson-Denny Reading Test was used to measure general reading ability. Both of these standardized tests were administered by trained guidance personnel. The investigator developed two instruments: the Critical Reading Skills Test (a 30-item test designed to measure the application of critical reading skills in areas of mass media, prose readings, and reference sources) and a student-reaction questionnaire to measure the subjects' attitudes toward critical reading.

A two-way analysis of variance, using a covariance program to adjust for pretest differences in mental ability, critical reading, general reading, and subject matter achievement, was used to compare posttest performance of the control and experimental groups in regard to critical reading, comprehension, and subject matter. Differences in these areas among the three ability levels were also analyzed by means of multivariate analysis of covariance. Differences in attitude toward reading between the two were also compared by chi-square. Finally data secured from teacher-reaction questionnaires and student-reaction questionnaires as well as personal interviews with teachers and students were described and analyzed.

## *THE RESULTS*

The results of the investigation in regard to the two main purposes of the study are as follows:

*Purpose 1*—The effectiveness of the self-instructional approach

1. Of six analyses comparing mean posttest scores between the experimental group and the control group in critical reading, two F-ratios, including the total score and the subtest on deduction, were found to be significant beyond the .05 level, and the subtest on interpretation was significant beyond the .01 level. All favored the experimental group.
2. No significant differences were found in four analyses comparing posttest scores between the two groups in general reading. The differences, however, in respect to all the variables and especially the subtest on comprehension and the total score were all in favor of the experimental group.
3. Two of the four analyses comparing subject matter achievement between the two groups were significantly higher for the experimental group. These were the subtest on propaganda devices and the total score (.001).
4. Five of ten chi-squares comparing responses on the ten item attitude questionnaire were significant and favored the experimental group.

*Purpose 2*—Type of student for which self-instruction is most effective

5. In regard to critical reading, intelligence was a significant factor (.05 level). The middle ability group (IQ range from 105 to 116 on the Otis-Lennon) gained most from self-instruction.
6. Though none of the F-ratios for comprehension was significant, data inspection indicated that high ability students (IQ range from 117 to 140) and low ability students (IQ range from 89 to 104) gained most.
7. In regard to subject matter, method was a significant factor, (.001 level) with the low-average group, however, showing the most gain. In addition, all the interaction ratios were not significant.

Data from questionnaires and interviews showed that self-instruction could be successfully adapted to specific units in the curriculum such as mass media and essays. No special equipment was required within typical classrooms. Reactions toward materials developed for the study indicated they were regarded as efficient and effective. They involved the students actively in the instructional process. The teachers described new and different roles they assumed as diagnosticians and prescribers. Although the teachers had preferred direct teaching, they nevertheless responded favorably to self-instruction, as did the students.

## *THE DISCUSSION*

Within the limitations of this study, it appears that a self-instructional approach is effective 1) in improving the critical reading skills of eleventh grade Regents students, and in particular the above average student; 2) in developing subject matter competence, especially of the low average student; and 3) in promoting favorable attitudes toward critical reading. Though not statistically significant, such an approach also tended to improve the general reading abilities of the subjects. As such, S-I offers an attractive alternative for teachers concerned with identifying effective instructional techniques.

In individualizing instruction, S-I materials can be especially helpful, for each student may work through the materials at his own pace. The brighter student can work quickly through the materials and then go on to enrichment topics or pursue independent projects. The slower student can take as much time as he needs; he is not pressured to complete a unit of work within an arbitrary period of time.

In regard to the conditions for implementing a self-instructional approach at the secondary level, it appears that efficient, effective S-I materials can be developed and implemented within the typical high school English curriculum and within the typical classroom. This conclusion suggests a number of interesting implications in the areas of curriculum, the students, and the teachers.

In curriculum development, educators should not only identify basic concepts in units of study but also the basic skills necessary for the student to process the essential concepts. Instructional activities can then be devised to improve the method of acquiring knowledge as well as the mastery of knowledge. The S-I principle permits more active involvement of students in all phases of the instructional process from the determining of objectives, through the selecting of materials, to the evaluating of their progress. Given such student involvement and independence, the teachers will be called upon to function as resource specialists, diagnosticians, prescribers, and guides. In effect, traditional roles will change, and teachers will become consultants and will need new insights and competencies. To develop these, specific preservice and inservice education would have to evolve.

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# SKIMMING STRATEGY IN READING SCIENCE AND SOCIAL SCIENCE

*Phil L. Nacke*
*Jersey City State College*

The relationship between skimming performance and familiarity with the content of stimulus passages in science and social science was investigated in the present study. Two aspects of familiarity were considered: 1) the actual amount of prior knowledge about the subject matter of a given stimulus passage, or *background information,* and 2) the cueing or *pretest familiarity* which may result from exposure to a set of questions relating to a stimulus passage prior to the presentation of the passage.

Previous studies considering the effects of pretest familiarity upon reading performance have produced conflicting results, and no assessment has previously been made with regard to skimming behavior. Similarly, while the amount of background information is commonly considered to affect reading performance, no empirical evidence has previously been presented to clarify the relationship between the amount of background information and skimming performance. This is basic information required for the development of a functional model of efficient reading behavior.

A remarkably meager amount of empirical evidence regarding the nature of the skimming process has been reported to date. Those studies which have been reported have not accounted for the familiarity variable, nor have they adequately controlled the strategy variable.

## *RATIONALE AND RELATED LITERATURE*

Skimming is defined for the present study as the special reading strategy in which the reader does not look at or fixate upon all of the words on the printed page while processing information at a rate in excess of 800 words per minute (wpm). Previous studies involving eye-movement photography have reported evidence that readers are not able to fixate on every word when proceeding at rates in excess of 800 to 900 wpm (*18, 19, 20, 21, 22*). On the basis of such evidence, it has been commonly concluded that readers are necessarily skimming when they cover printed material at rates in excess of 800 to 900 wpm.

In order to ascertain whether skimming performance is influenced by familiarity with the content, it was first necessary to determine whether skimming was, in fact, an effective strategy for gaining information from the passages. The results of previous studies by Moore (*12, 13*) and Grayum (*4*) have indicated that individuals in high school and college are able to skim effectively. Moore concludes that *S*s who were able to skim effectively were able to score on a comprehension test as well as or better than *S*s who were generally slower readers. It should be pointed out, however, that Moore did not control the differences in the amount of previous knowledge which the *S*s had. The *S*s in Moore's study included 84 females and only 11 males, with ages ranging from 19 to 58 years.

On the other hand, Hill (*6*), Smith (*17*), Maxwell (*9*), and others observe that students do not necessarily skim effectively when directed to do so, even when given a limited purpose such as finding the main idea.

Kingston (*8*) and McDonald (*10*) discuss the effect of background information on reading performance. The argument is that the reader who has background information about the subject matter of a passage will find the material easier to read than will a person who has little background information about the topic. Weaver and Bickley (*24*) suggest that reading in most situations is actually a "selecting of the parts of what we already know." Reading in this sense becomes essentially a process of confirming what the reader already knows or what he anticipates and predicts. Weaver and Bickley's point of view may be more relevant to the process of skimming, or rapid and efficient reading in general, than it is to reading carefully and intensively, or reading slowly. Certainly, a reader must know the meanings of referential words in a passage and be able to make some appropriate associations among the meanings to gain information from the printed discourse. Otherwise, decoding printed discourse is not possible at all, for reading necessarily requires some level of background information. Familiarity with the content of the material, i.e., background information, has not been investigated as a factor which affects a reader's ability to cover words in specific passages at a speed which would be considered to be skimming.

Reading comprehension has typically been measured without ascertaining the amount of previous information which *S*s had about the subject matter before reading the material (*8*). Since it is known that individuals vary greatly in the amount of background information which they possess, it is conceivable that two persons could obtain the same score on a comprehension test after reading a given passage even though they differed significantly in the amount of specific background information which they had before reading the passage. One person may have gained a great deal of information from reading while the other person may have gained very little information that he did not possess prior to reading. It is extremely important, therefore, to assess the amount of previous information which readers have before reading in order to determine the amount of information gained from reading (*14*). Information gain is measured by administering a pretest as well as a posttest of comprehension. The information-gain score is calculated by computing the difference between the pretest score and the posttest score for each individual.

Exposure to a pretest, however, can be a confounding variable in research (*2*). It can be argued that exposure to a set of questions relating to the content of a stimulus passage may affect a person's response patterns to parts of the discourse during the act of reading or skimming. The pretest questions may cue the reader to look for answers to specific questions when he subsequently reads the passage.

Rothkopf (*15*), Rothkopf and Bisbicoes (*16*), Bruning (*1*), Frase (*3*), and Morasky and Willcox (*11*), in their studies of mathemagenic behavior, conclude that questions presented immediately prior to reading generally do not necessarily facilitate comprehension or "learning" from prose materials. If the presentation of relevant or adjunct questions just prior to reading a passage does not necessarily have a facilitating effect upon reading performance, then it would seem unlikely that exposure to a pretest would affect reading performance when there is a lapse of [illegible] ay several weeks, between the pretest and the posttest, the latter being taken immediately after exposure to the stimulus passage. Karlin and Jolly (*7*) found that exposure to a pretest did not affect posttest scores when there was a time lapse of several months. They observed the same results when the pretest and posttest were exactly the same form of the test as when an alternate or "equivalent" form was used. Ware and Bowers (*23*), as well as Gustafson and Toole (*5*), found that the pretesting did not influence achievement on the posttest.

Despite the findings of previous studies, the *S*s involved in a pilot study related to the present investigation frequently indicated that they could remember questions that were part of the pretest, even after a time lapse of more than two weeks. Further, some of the *S*s indicated that their having previously answered the pretest questions had helped them to gain information when they skimmed the stimulus passages. For these reasons it was considered desirable to determine the possible effect of the pretest on skimming performance.

## *METHOD*

*Subjects.* In a large senior secondary school in North Vancouver, British Columbia, 108 grade eleven students were randomly selected to serve as subjects in this study. The *S*s were randomly assigned to three treatment groups: 1) Skimming/Pretest, 2) Skimming/No Pretest, and 3) No Skimming/Pretest.

*Materials.* One of the two stimulus passages was scientific in nature and dealt with the solar system. The other passage, in the area of social studies, was concerned with the age of exploration. Each passage contained 1,400 words. The Flesch reading ease scores were 64.30 and 63.48, respectively, for the science and the social science selections. These scores indicate that the passages were in the average seventh to eighth grade levels. Each selection was presented in seven 200-word segments (± five words) on consecutive pages of stimulus booklets. The length of line was 18 picas.

A set of 56 multiple choice items was used as the measuring instrument for the science passage. For the history passage, the criterion measure included 44 multiple choice items. All items had five alternatives arranged in random order.

The Van Wagenen Rate of Comprehension Scale, Form D, was used to measure the initial rate of comprehension of all *S*s.

*Procedure.* In the first experimental session, the Van Wagenen Rate of Comprehension Scale, Form D, was administered to all *S*s. Then the *S*s in the Skimming/Pretest and the No Skimming/Pretest groups responded to the batteries of multiple choice items for science and social science. The order of presentation was counterbalanced. The *S*s in the Skimming/No Pretest group responded to items not related to the two stimulus passages in any way. This dummy activity included 100 items and required approximately the same amount of time for completion as the two batteries of items answered by the Pretest groups.

Four weeks after the first session, the *S*s in the Skimming groups were asked to skim the two stimulus passages under carefully controlled time limits. Instructions to the *S*s regarding the skimming procedure were to get as much information as they could from each page within the time allowed. The time limit for each page was 12 seconds. The signals to turn the pages were recorded on tape as part of the prerecorded instructions for the *S*s. The order of presentation of the two passages was counterbalanced.

The *S*s in the No Skimming group were engaged in an unrelated activity during the time the other *S*s were skimming. All *S*s in the study responded to the corresponding posttests immediately after the Skimming groups were exposed to the stimulus passages.

*Design.* The primary dependent measure was the posttest raw score, the total number of correct answers on each of the two criterion measures. A second dependent measure was the gain score (posttest score minus the pretest score). The gain score could, by definition, be calculated only for those two groups which responded to the pretest.

Rate of comprehension scores were treated as a covariate in order to adjust the dependent variable for possible differences among *S*s in general rate of comprehension.

## *RESULTS*

The posttest raw score means and the gain score means are given for the science passage in Table 1 and for the social science passage in Table 2.

The covariate, rate of comprehension, was found to be significantly related to the dependent variable when the posttest raw scores were considered, both for science ($F = 15.72$, $p < .001$) and for social science ($F = 20.13$, $p < .001$). However, rate of comprehension was not significantly related to either passage when the gain scores were considered.

After adjustment for initial differences due to general rate of comprehension, there were significant main effect differences

TABLE 1

SCIENCE POSTTEST RAW SCORE AND GAIN SCORE MEANS BEFORE AND AFTER ADJUSTMENT FOR THE COVARIATE.

($N = 108$)

| Treatment Group | (N) | Raw Score Means | Adjusted Raw Score Means | Gain Score Means | Adjusted Gain Score Means |
|---|---|---|---|---|---|
| Skimming | | | | | |
| Pretest | (36) | 25.36 | 25.04 | 4.18 | 4.25 |
| No Pretest | (36) | 18.47 | 18.66 | — | — |
| No Skimming | (36) | 21.56 | 21.46 | 0.78 | 0.80 |

TABLE 2

Social Science Posttest Raw Score and Gain Score Means Before and After Adjustment for Covariate.

(N = 108)

| Treatment Group | (N) | Raw Score Means | Adjusted Raw Score Means | Gain Score Means | Adjusted Gain Score Means |
|---|---|---|---|---|---|
| Skimming | | | | | |
| Pretest | (36) | 17.70 | 17.47 | 2.20 | 2.12 |
| No Pretest | (36) | 15.58 | 15.76 | — | — |
| No Skimming | (36) | 15.42 | 15.43 | 1.00 | 1.02 |

among treatment group means for science ($F = 5.21$, $p < .01$). No main effect differences were observed for history ($F = 1.05$, $p > .05$).

No further tests were performed on the history data since there was no evidence of differences among the adjusted cell means. Further contrasts were made for the science data involving the posttest raw score means and the gain score means.

In order to test the assumption that *S*s are able to skim effectively, contrasts were made between the two Skimming groups and the No Skimming groups for the science passage. The observed difference between the posttest raw scores of the Skimming/Pretest and the No Skimming groups was 3.80, which was statistically significant ($F = 5.31$, $p < .05$). When gain scores were considered, a statistically significant difference was again observed ($F = 7.21$, $p < .01$).

The Skimming/Pretest group was compared with the Skimming/No Pretest group in order to determine whether the pretest had a sensitizing effect on the *S*s. The observed posttest raw score difference of 6.89 was significant ($F = 10.80$, $p < .01$).

When pretest scores were used as a covariate in analyzing the posttest raw scores, a significant main effect due to the amount of background information was found ($F = 26.31$, $p < .01$).

## *DISCUSSION*

Analysis of the data collected in this study revealed that skimming performance of grade eleven students or the science passage was effective for the Pretest group but not for the No Pretest group. It was concluded that familiarity with the content of the science passage could be induced by exposure to a related pretest. In fact, skimming was effective only when there was cueing via exposure to the pretest. It is conceivable that familiarization or cueing may be effected by processes other than the pretest questions used in the present study. The format, the style of the passage, and graphic aids, for example, may also have cueing effects. The nature and extent of induced familiarity deserve further investigation.

Differences in the nature of the stimulus passage seem to affect skimming performance, since, overall, the *S*s were not able to skim the social science passage effectively. Skimming strategy may be used appropriately for some types of material but not for others without special instruction and practice. The results of the present study must be interpreted cautiously, however, since further study and replication is required in order to determine whether the skimming strategy may be applied as effectively in one content area as the other.

It was also concluded that, as predicted, having a greater amount of background information does facilitate skimming. *S*s who had a greater amount of background information were able to gain more information by skimming than the *S*s who had less background information. This conclusion tends to support the point of view that skimming is predicted upon a process of confirming (or disconfirming) predictions which the skimmer makes on the basis of his background information. Further research on the validity of such a model of skimming performance is indicated.

The relationship of skimming with other factors such as redundancy reduction (the use of key words), practice effect, and short-term memory should also be studied in order to develop a sound basis for a model of skimming strategy in reading.

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# THE TEACHER'S FUNCTION IN DEVELOPING LISTENING SKILLS

*Dorothy Kendall Bracken*
*Southern Methodist University*

For years educators have been *talking* and *writing* about the importance of developing and improving listening skills, but not until the sixties did teachers begin to devote *time* to instruction in listening—the neglected language art. Three factors have contributed to the awakening to the importance of daily plans for improving listening skills: 1) publication of research findings, which link the improvement of reading skills to the improvement of listening skills; 2) availability of tape recorders, tapes, records, and listening stations; and 3) production of commercial listening programs. Also, during the past decade, the function of the teacher in improving listening skills has become clearer.

At the present time, the teacher's function in developing and improving listening skills is: 1) to know what research says about listening, 2) to be conscious of *basic* and *cognitive* listening skills, 3) to determine the listening abilities of her pupils, and 4) to organize a class for instruction as a result of pretesting.

## *RESEARCH AND LISTENING*

There exist today numerous articles on listening. Duker (*5*) lists 1,332 references in the educational literature which are concerned with listening. Included in this mass of information are the findings of several research studies, some of which are quite significant in their identification of the relation of listening to reading.

To select only a few for mention, Bracken (*1*) writes, "From the research by Kelty (*10*), Lewis (*11*), Lubershane (*12*), Flederjohann (*7*), and Hollingsworth (*9*), there has emerged a significant idea: When we improve certain specific skills in listening, those same skills improve in reading. In most instances, control and experimental groups were set up, the experimental group receiving instruction in listening and reading skills and the control receiving instruction only in reading skills. When the same skills taught in listening and reading were tested, the conclusions were that instructional practice for certain purposes did favorably affect the ability of pupils in the intermediate grades."

In summarizing several research reports in which the effects of listening have a direct relation to progress in reading, Hollingsworth concludes, "Many of these research reports show that *through improvement of listening abilities reading can be improved.* Listening *does* have a positive effect on reading achievement."

Would it not seem an appropriate procedure, then, to teach certain specific skills first through listening and secondly in reading? Have we been remiss in not using a listening-reading method, or procedure, in the improvement of reading instruction?

## *BASIC AND COGNITIVE SKILLS*

For discussion purposes, it might be well to think in terms of two types of listening skills, basic and cognitive. What skills are basic to effective listening? Given a high-level ability of hearing acuity, the most fundamental basic listening skill is probably that of discrimination. Because of its importance in the teaching of reading, teachers probably give students more practice in discriminating than in any of the other basic listening skills.

How much attention does the classroom teacher pay to another basic skill—focusing? or attending? Focusing is of primary importance in listening. The good listener focuses, or zeroes in, on what the speaker is saying; he focuses, or attends, *only* to what the speaker says. The listener must "tune out" extraneous distractions and "tune in" the spoken word. All teachers realize that pupils vary widely in this ability.

Closely allied to focusing is the skill of tracking. Can a pupil receive the intended message when there are competing messages? Some pupils are successful in discriminating and focusing, but they may be unable to track one of two competing, voiced messages or a voiced message over environmental sounds. Tracking is a difficult listening skill.

Even more difficult is the remembering skill. One of the reasons for this difficulty is that the demand from input is temporal in order; it is time oriented. The successful listener discriminates, focuses, and tracks; but he must also remember and sequence.

Because there are no replays, no visual comparisons, and no relistening, remembering and sequencing are more difficult in listening than in reading. Friedman (*8*) says, "Listening behaviors consist of rejecting as well as processing certain portions of a speech . . . selecting appropriate portions and/or aspects of the stimulus is one activity that is necessary . . . [the listener] has to connect the internal work that he is going to do with the stimulus, to the parts of the stimulus that he has accepted. Then, of course, what he does he must do with accuracy and with required speed." Other problems of the listener are that he cannot change the rate at which he processes the ideas listened to, he cannot listen ahead of the speaker, and he cannot listen backwards. While reading presents a fairly permanent medium, one of the chief characteristics of listening input is nonpermanence.

While they may be effective in these basic skills, some listeners may be deficient in the many cognitive skills of listening for the main idea, for details, for cause and effect, for fact and opinion, for critical thinking, and for any of the enjoyable purposes of creative listening. If the basic listening skills are difficult, the cognitive skills are even more so because of the complex nature of the thinking process itself.

### *DETERMINING LISTENING ABILITIES*

If a teacher is serious about improving the listening skills of her pupils, how should she proceed? What should the first step be?

The first step in improving listening is the same as for teaching any other skill. The teacher determines the needs of each student, perhaps by the use of standardized tests for elementary students (*6, 13*), or by a different form of the STEP test or the Brown-Carlson *Listening Comprehension Test* (*4*) for the high school level.

Informal pupil ratings sometimes reveal weaknesses and point to certain areas which need improving (*2*). Such a rating might read as follows:

#### INFORMAL PUPIL RATING OF LISTENING

Answer *yes* or *no.*

_____ 1. I listen to the speaker. I do not just pretend to listen.

_____ 2. I listen to all the speaker has to say. I do not merely listen to part of what he says.

_____ 3. I listen to the speaker and concentrate on what he is saying. I do not let my mind wander.

_____ 4. I listen to the speaker even though I can see and hear things happening around me. I do not let what is happening around me interrupt my listening.

_____ 5. I listen to the speaker even when I think I am not interested in what he is saying. I do not stop listening even if I think I am no longer interested.

_____ 6. I listen to the speaker even when his words and ideas are difficult to understand. I do not stop listening if the listening becomes difficult.

_____ 7. I listen until the speaker has finished. I do not stop listening while the speaker is talking.

_____ 8. I listen for the speaker's main ideas. I do not listen for details only.
_____ 9. I listen for more than the facts. I do not listen for facts only.
_____10. I listen to the speaker even though I am not impressed by his delivery and appearance. I do not stop listening because I am displeased with the speaker's delivery and appearance.

Informal, teacher-made listening skills tests reveal weaknesses, also. For example, here are a few ideas which, when put into operation, will test informally certain basic skills at approximately the fourth grade level:

1. Auditory discrimination
   Which of these words rhyme?
   cut-can
   run-sun
   run-cut
   fight-light
2. Simple recall (when question is worded as answer in the passage)
   The teacher has the pupils listen to a paragraph, the length of which is determined by the listening maturity of the pupils. Then she asks simple recall questions of detail.
3. Following directions
   Specific directions to be followed can be given in an informal test. Also, the giving of both of the foregoing informal tests, or any other tests for that matter, will determine something of the ability of each student to follow directions.
4. Following story sequence
   The teacher can present to the pupils any passage which includes the elements of sequence: something happened *first*, *then* something else occurred, and *finally* the conclusion of the action was reached.

Questions such as the following will help the teacher to determine which students can successfully listen for story sequence if they have just heard a story of a boy who found himself trapped.

1. To work himself free, Harry wiggled his body back and forth. Was this the first thing he did in the story?
2. Finally, Harry crawled to safety. Was this the last thing Harry did in the story?

Cognitive listening skills tests are more difficult to create. Included in the teacher-made tests should be passages and appropriate questions which test listening for the main idea, detail, cause and effect, visualization, mood, inference, and fact and opinion. Only one illustration will be given here, that is, one way to test visualization.

Instructing the class to draw pictures in their minds as they listen, the teacher selects a passage heavy in sensory impressions and reads it to the class. After the pupils hear the passage, they are asked to draw real pictures in response to visualizing while listening.

At a higher level, during the years of the middle school, a teacher may wish to check on her pupils' abilities to track, the focusing on and following through time of one voice or sound in the presence of other voices or sounds. The teacher might create an environment of many sounds using radio, tape recorder, and record player while asking the students to track only one or a voice against all these. Other ways of testing pupils' abilities to track are placing two boys' voices against each other, placing a girl's voice against a boy's voice, or any other variation or combination of this activity.

## *ORGANIZING CLASSES FOR INSTRUCTION*

No matter what the means is, whether it be through the use of informal tests prepared by the teacher or standardized tests, the teacher with a minimum amount of record keeping can determine the functional listening level and the specific skill needs of each pupil in her class. By testing individuals in the class on a classwide basis she can discover just which of the basic and cognitive skills each pupil needs to devote his attention to in order to improve. After studying the mistakes made on an informal listening test, one fourth grade teacher discovered that 5 pupils needed work on discrimination, 20 on following directions, 12 on attending, and nearly all the class on main idea, visualizing, and inferring. With this information in front of her she grouped those who needed work on the basic skills and gave them specific instruction and practice in those skills. Next she helped those who needed practice on the more difficult cognitive skills. Since most of the members of the class needed to improve listening for the main idea, visualizing, and inference, she instructed and gave practice to the entire group in these specifics.

### *Instruction: Two Examples*

Two examples of specific instruction in listening follow, one on improving the ability to follow directions and the other on improving the ability to attend.

A teacher can help pupils improve their abilities in following directions by instructing them to: 1) listen to *all* of the directions before beginning to follow them, 2) make a mental picture of what is to be done, 3) repeat the directions, and 4) use good judgment. She can then give them an example with an explanation of why these steps will improve following directions. Later she can give pupils practice in following directions by devising several sets of directions while reminding the pupils that if they follow the four steps listed, their skill in listening-to-follow-directions will improve.

At the junior-senior high school level the teacher can improve pupils' listening abilities by calling their attention to the common listening faults. In many cases, just calling attention to listening faults that all are guilty of at one time or another, will help many students. Others, however, because of severe listening disability, must have not only instruction but also example, demonstration, and practice. The common listening faults can be stated by rewording the Informal Pupil Rating of Listening given earlier in this paper.

There are guides (*3*) available to teachers which give many suggestions for improving listening, for example, the *English Language Arts: Listening and Speaking Section* from the Curriculum Development Center, Albany, New York. Its three sections consider Aural Comprehension, Participation in Listening, and Auditory Discrimination.

Under Aural Comprehension, the pupil learns to
  Listen for specific information
  Listen for the main idea
  Listen for and understand relationships
  Listen for and evaluate supporting material
  Listen for and evaluate conclusions

Under Participation in Listening he learns to
  Understand the difference between hearing and listening
  Understand the importance of listening
  Understand the responsibilities of a listener
  Understand some of the factors that affect listening
  Recognize and overcome poor listening habits
  Recognize and develop the characteristics of
    an effective listener

Suggestions for improving Auditory Discrimination are
  Identify and discriminate between sounds
  Recognize intonation patterns and their effects on meaning
  Recognize rhythm and rhythmic patterns
  Recognize rhyme and patterns of rhyme
  Recognize repetition and refrain

Under each of these headings practical suggestions are given through concrete recommendations of activities designed to improve listening skills.

Teacher guides to listening programs (*2, 14*), furnish a wealth of material on how to teach listening, give exercises for practice, and suggest extended activities. Textbooks on language and reading and their accompanying teacher guides furnish still more ideas that teachers may incorporate in plans for improving listening.

## *SUMMARY*

This paper identifies some research which has been done on the relation of listening and reading, lists some basic and cognitive listening skills, suggests ways of determining pupil needs, presents ways of organizing classes for improving listening skills, and gives a few examples of ways pupils can be instructed to become better listeners.

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# EVALUATION OF CORRELATED LISTENING-READING COMPREHENSION LESSONS

*Laura Z. Bursuk*
*York College of the City University of New York*

The purpose of this study was to compare the effectiveness of a correlated listening-reading sequence of comprehension lessons with a reading-only sequence of comprehension lessons when used with adolescent retarded readers of varying sensory modality learning preferences. Based on the findings of a previous study by the same researcher, it was hypothesized that the adolescent retarded readers who were exposed to correlated listening-reading instruction in comprehension of verbal material would achieve greater growth in reading comprehension than those who were exposed to reading comprehension instruction only. It was further hypothesized that sensory modality learning preference of the adolescent retarded readers would be a factor in the relative effectiveness of the two modes of instruction. Specifically, it was hypothesized that the correlated listening-reading approach would be more effective with audile learners and with pupils displaying neither audile nor visile learning preference than it would be with visile learners, while the reading-only approach would be more effective with visile learners than with audile or nonpreference learners.

The rationale for the experimental teaching approach (i.e., the correlated listening-reading approach) was based, first of all, on the concept of reading as thinking (*2, 3, 5, 7*). According to this concept, that which will serve to improve thinking should also serve to improve reading comprehension. Since the oral-aural aspects of listening activities lend themselves to facile and wide discussion entailing thinking processes that are also germane to reading, it seems reasonable to assume that the thinking patterns taught and practiced in listening situations should apply to and transfer over to reading activities as well. It is the writer's opinion that because the listening situation does lend itself to thoroughgoing discussion and analysis of the thinking that is going on in responding to the material listened to and can include both direction for thinking and immediate feedback of the products of thinking by the instructor leading the discussion, instruction in listening makes a logical starting point for the development of the same comprehension skills needed in reading.

The experimental listening-reading approach was based also on evidence regarding sensory modality learning preferences of pupils. Specifically, data disclosed in the literature as well as revealed in previous research conducted by this writer had indicated that, in any group of unselected students, there probably are differences among the individuals in the sensory modality (visual, aural, or neither) preferred or used more effectively in the intake and processing of information. Some may do better with material that is listened to; others may learn better with material that they read; still others may function equally well with either type presentation. The teacher, consequently, who relies on only one mode of lesson presentation may be serving the needs of only some, not all, of his pupils.

Moreover, teaching should make use of the individual's strength and proceed from there so that transfer of training and reinforcement can take place more effectively in the weaker or less preferred modality. Retarded readers, particularly, may lack proficiency in the visual mode of acquiring knowledge and skills, a deficit which may be an important contributing factor to their continued lack of progress under reading instruction programs that are unchanging in their strictly visual approach. With such pupils, it could be of benefit to use the aural avenue to introduce, clarify, and give practice in the skills of comprehension of verbal matter before requiring pupils to cope with the reading of similar material. The experimental teaching approach which used correlated listening instruction as an adjunct to remedial reading instruction was an implementation of this idea.

## *PROCEDURES*

Suburban high school students were screened and tested in order to separate those who met the criteria of the study in regard to age, nonlanguage IQ, reading grade level, amount of reading retardation, and freedom from sensory defects. Eligible students were classified according to sensory modality learning preferences (visual, auditory, or no modality preference) on the basis of discrepancy scores between the Reading and Listening Tests of the Sequential Tests of Educational Progress.

Next, a stratified sample of students representing equal numbers of audile, visile, and no modality preference learners were randomly assigned, within sensory modality learning preference categories, to remedial reading instructional programs using different approaches in terms of sense modality emphasis of instruction. Analysis by use of *t* tests revealed that the groups were comparable as to age, IQ, reading grade level, and amount of reading retardation.

Each treatment group met for remedial reading instruction three times weekly for one semester for 45-minute periods per session. The experimental group was exposed to a comprehensive program of correlated listening comprehension and reading comprehension lessons. On Mondays and Wednesdays, group lessons in a specific listening comprehension skill were presented. On Fridays, a follow-up lesson in reading, for applying and reinforcing the same comprehension skill to printed materials exclusively, was presented. Pupils worked independently on applying the skill to selected, appropriate, written material in workbooks or textbooks or to written material that had been prepared and duplicated by the investigator.

The control group was exposed to a program of reading comprehension lessons only, lessons designed to develop the same skills of comprehension involving literal understanding, interpretation, and critical evaluation (and their inherent subskills) as were covered in the combined aural-visual instruction of the experimental group. On Mondays, the teacher introduced the specific comprehension skill to be taught and clarified its value to the students. Group chalkboard and overhead projector work were done, involving application of the skill to written material thereon. The material used was adopted from material presented orally in the experimental group's parallel listening lessons. Only sensory mode of lesson presentation and application differed. On Wednesdays, pupils worked as a group with printed material for purposes of reviewing and reinforcing the comprehension skill developed in the preceding lesson. The material used was the same as that used by the experimental group in the parallel listening comprehension lessons. Again, only sensory mode of lesson presentation and application differed. On Fridays, pupils worked independently on applying the skill to written material that was the same as was used on Fridays by the experimental group.

In brief, on Mondays and Wednesdays, when the experimental group was taught verbal comprehension skills by an aural approach, the control group was taught the same comprehension skills, using the same content, but by a visual approach. On Fridays, both the experimental and the control groups were taught by the visual approach, with lessons being identical both as to skill applied and materials used. To avoid the possibility of teacher variability affecting the results of the experiment, both groups were taught by the same remedial reading teacher.

At the end of the semester, all pupils who participated in the investigation were given the California Reading Test, Advanced Level, Form X as a posttest (Form w had been used for the pretest), in order to determine the amount of gain in reading comprehension. These gain scores were analyzed to test the hypotheses of the experiment. A 2 × 3 factorial analysis of variance was computed, using the statistical paradigm below.

STATISTICAL PARADIGM FOR ANALYSIS OF DATA

| | Treatments (A) | |
|---|---|---|
| Sensory Modality Learning Preference (B) | Combined Aural-Visual (experimental-$A_1$) | Predominantly Visual (control-$A_2$) |
| Auditory ($B_1$) | $A_1B_1$ | $A_2B_1$ |
| Visual ($B_2$) | $A_1B_2$ | $A_2B_2$ |
| No Preference ($B_3$) | $A_1B_3$ | $A_2B_3$ |

## *RESULTS*

To test hypothesis one the treatment main effect ratio was computed with the .05 level of significance in the direction of the experimental group used as the criterion for confirming the hypothesis. To test hypothesis two the interaction *F* ratio was computed and considered for significance at the .05 level. Since the interaction *F* ratio was found to be significant beyond the prerequisite .05 level, the test for individual mean comparisons was used to test the significance of the differences between the specific cell means. Again, the .05 level was used for significance.

Hypotheses one and two were upheld. Therefore, it was concluded that when sensory modality learning preference is not considered as a variable, a correlated listening-reading instructional approach is more effective than a reading-only instructional approach. The teaching procedure which correlated lessons in specific listening comprehension skills with follow-up lessons in the specific parallel reading comprehension skills resulted in significantly greater growth in the reading comprehension of adolescent retarded readers than did the teaching procedure which utilized the conventional, predominantly visual approach with reading lessons only. In addition, it was concluded that there is a significant interactive effect between pupils' sensory modality learning preferences and the sense modality emphasis of the teaching approach used with such pupils. Specifically, the correlated listening-reading approach is more effective in improving the reading comprehension of auditory learners and pupils with no sensory modality learning preference than it is in improving the reading comprehension of visual learners, while the predominantly visual approach is more effective in this regard for visual learners than it is for auditory learners and pupils with no sensory modality learning preference.

Although no hypothesis was made regarding differences in amount of reading growth on the basis of sensory modality learning preference per se, analysis of the data reveals that there are no significant differences among pupils with auditory learning preference, visual learning preference, or no sensory modality learning preference when method of instruction is not taken into account. The mean gain in reading comprehension does not differ significantly from one modality group to another. From this factor it may be inferred that sensory modality learning preference in itself is not a factor in the reading growth of the adolescent retarded readers in the study sample. Rather, as the statistical analysis of the results have revealed, it is the interaction of a particular modality preference with a particular teaching procedure that makes a significant difference in the amount of gain in reading comprehension.

A subsidiary but very vital observation should be made at this point, namely, that in a typical classroom situation (remedial or regular) pupils are not screened and differentiated according to sensory modality learning preferences. Rather, the teacher usually must cope with her pupils' needs minus this important knowledge about them. Therefore, if the teacher, when working with such an unselected and undifferentiated group of students (i.e., unselected and undifferentiated in respect to their sensory modality learning preferences) utilizes only one mode of lesson presentation, that teacher may very well be serving the needs of only some, not all, of the pupils.

### *IMPLICATIONS*

On the basis of the results of the study, it appears that the oral communication process involved in verbal listening activities has a facilitating effect upon the written communication process involved in reading activities. This finding is in agreement with the findings of other investigators such as Pimsleur and Bonkowski (*6*) who in a sensory experiment noted that aural presentations have a facilitating effect upon visual presentations. In view of this, reading specialists and supervisors responsible for remedial reading programs should attempt to incorporate a combined, correlated, aural-visual (listening-reading) instructional approach into the high school remedial reading program in an effort to provide a more fruitful teaching procedure.

As Miller (*4*), Westover (*8*), and this investigator discovered, there are differences among pupils in the sensory modality preferred or used more effectively in the intake and processing of verbal information. In this study, specifically, as well as in a related previous one, this investigator found that the majority of the adolescent retarded readers in the study samples were the ones with auditory learning preference or no sensory modality learning preference. Students with visual learning preference were in the distinct minority. This finding suggests that adolescent retarded readers may, as a group, lack definite proficiency or superiority in the visual mode of acquiring knowledge and skills, a deficit that may be an important contributing factor to their continued lack of progress under reading instruction programs that are unchanging in their visual approach. Whether this relative visual learning ineffectiveness is a cause or a result of reading retardation is a moot question. What is of concern to a high school reading specialist is the fact that there may be differentiation of sensory modality learning preferences among the students with whom he must work and, therefore, for whom he must provide productive learning experiences.

If possible, it would be best to test one's pupils for determination of individual sensory modality learning preference before beginning a program of remedial reading instruction with them. In this way, the teacher could map out a program that would meet his pupils' learning needs on a differentiated basis in terms of a combined aural-visual or a predominantly visual approach. Pupils then could be taught by the sensory emphasis approach most productive for them.

If the sensory modality learning preferences of the pupils are not known (as very often will be the case in the usual school situation where it is not common to screen for such a variable), the remedial reading teacher should utilize both the aural and the visual modes in a combined, integrated, correlated, structured manner in order to assure servicing his pupils' learning needs. The experimental approach on which this study is based appears to be of value in this regard. To avoid penalizing the visile learners, additional practice in applying newly learned reading comprehension skills to written material should be provided. This procedure could take the form of specifically designed and carefully checked homework assignments.

A statement by Dechant (*1*) seems a fitting conclusion to this paper since it sums up a viewpoint congruent with the findings of this study. Dechant declares

> In addition to an understanding of the pupil's maturational, experiential, intellectual, neural, physical, social, emotional, motivational, language, and sensory characteristics, knowing the pupil means knowing his preferred mode of learning. Identification of the child's mode of learning may well be the end goal of classroom diagnosis. . . . It would seem reasonable to utilize instructional materials which are congruent with each learner's particular strengths in perception, imagery, and recall.

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# THE ROLE OF MACHINES IN THE READING PROGRAM

*Robert A. Palmatier*
*University of Georgia*

During a tour of a local school the principal quickly guides his visitors to a beautifully equipped reading lab in response to questions about the school's reading program. The visitors agree with him as he, beaming from ear to ear, points out the beauty and completeness of his collection. As they ask about the use of the material, he continues to quote prices and relate his philosophy of "nothing-but-the-best" for his school. He still misses the point when they again ask when and how the teachers use the material. Later visits to the classrooms indicate that the teachers do not use the equipment for two reasons: 1) the effort required to get it and 2) the lack of knowledge concerning its use.

This situation is typical of schools and is a wasteful use of money allocated for the instruction of children. But what is the answer? Should we move to legislate against the purchase of machines because they are not used by teachers and are wasteful, being mere museum pieces shown by proud principals? It seems unreasonable to approach the problem at this level. There are other basic questions. Does machine instruction, in fact, provide for children's learning? Once we have determined what mechanization has to offer to the teaching of reading, other questions can be asked. If there is benefit, then what sort of instructional tasks can be assigned to machines? Where can machines be best used? How can they be used? Finally, after we have answered each of these questions, we must consider providing directions for the implementation of machines in schools and reading programs.

This paper attempts to provide answers or at least to suggest plausible routes for securing answers to these questions. First, the research evidence on the instructional validity of machines is summarized. Second, the sorts of machine programs and aids available in the area of reading instruction are discussed in such a manner as to also indicate the type of instructional needs which can be filled with mechanized approaches. Third, comments are directed toward the place of machines in the school in order to answer the questions about where and how machines should be used. Finally, the responsibilities of teacher preservice and inservice training for the area of machines in the reading program are considered.

Looking to the standard sources of research evidence one finds much said about machines and reading. Many researchers have compared the value of machines with traditional or teacher and text instructional approaches.

## *RESEARCH VIEW*

Artley's monograph (*1*) on trends in secondary reading serves as a good example of the content of the literature on mechanical and programed procedures. Of the eleven studies Artley reports, none were total machine vs. total traditional teaching investigations. However, results are reported in two cases to demonstrate higher performance by using machines, in one case to demonstrate higher performance by traditional method groups and in five cases to show no significant differences between mechanical and teacher-oriented programs. It is interesting to note that, regardless of the results, all researchers conclude that machines may not be worth the expense required, but none conclude likewise for traditional teaching programs even though they produced no higher levels of performance than the machines.

Possibly these interpretations reflect the same sort of bias found by Millman (*3*) when he questioned teachers and pupils on the value of mechanized instruction. Elementary teachers felt there was little value, junior high teachers were enthusiastic about the value of machines, and high school teachers felt machines provided nothing different from the traditional approaches. Students, on the other hand, at all levels felt there was value in mechanical instruction and reported enjoying the use of such approaches.

Karlin (*2*) evaluated the results of 12 studies on the use of three types of apparatus—flash meters, pacers, and film. He reports that 11 of the 12 favor natural reading approaches since these approaches either surpassed or equaled the results of machine instruction. Again, equaling teacher performance was assumed to be not sufficient evidence for the use of machines.

Spache (*6*) reviewed 54 studies concerning the effectiveness of mechanical devices for improvement of reading rate, and he alone seems to accept evidence which demonstrates that machines produce permanent results and do so, generally, as well as other methods. His conclusion indicates that the value of machines for rate improvement should not be dismissed lightly.

Research on the effectiveness of machines in the reading program has been reported widely. However, in addition to the usual limitations of research, the studies in this area seem in general to share a unique set of confounding factors:

1. Only machines of the earliest tachistoscopic variety have received significant attention. Most of the studies were limited to reading rate as a criterion variable.
2. Almost none of the studies report pure comparisons in which experimental treatments were limited to machine vs. nonmachine approaches. In many cases a hodgepodge of machine and programed activities are compared with teacher instruction. Since researchers define these two alternatives in a variety of ways, the conclusions cannot be applied to teacher-directed vs. nonteacher-directed training questions.
3. A slight interpretational bias consistently recurs. In cases in which machine and nonmachine groups do not show significant differences in achievement, the most frequently reported finding, the usual conclusion is that this result does not support the expenditure of funds on machines. If a reviewer were not a teacher but an economist, he might conclude that the evidence does not support the expenditure of funds on teachers any more than the expenditure of funds on machines.
4. Machines now offered to the reading market are sufficiently new and different from the earlier tachistoscopic devices to exclude judgment on earlier machines. A new thrust in research is required to evaluate the presently available programs, for the value of the new technology is now largely unanswerable from a research viewpoint.

## *CURRENT INDICATIONS*

The research literature does not yet reflect the experimentation with machines and programs which have been produced in the past five years. Thus, one must look to popular journals, the press, public relations material, and opinions for indications on the value of the new technology. Although these sources provide less respected precedents on which to base judgments, they do provide direction for both initiating practice and planning research validation.

A demonstration project utilizing the Hoffman Reading Program with seventh graders at the Potrero School in El Monte, California, indicates the increased rate of achievement possible. During the first four months of the project (February to June 1970) 84 students, in this school serving a predominantly Spanish speaking neighborhood, showed a mean grade placement gain of one year and three months on the Comprehensive Test of Basic Skills as compared to only a two month gain for the 78-student control group using standard teaching methods.

Experimental use of the Edison Responsive Environment (better known as the talking typewriter) in an Atlanta public school project reported that during a two month period students gained from two to four months in achievement test performance. Another use of the ERE in Freeport, Long Island, demonstrated the ability of the machine to provide for initial reading instruction for kindergarten children. The machine not only succeeded in doing the job of initiating reading instruction but did so at a more rapid rate than the enriched traditional program used with the control group.

While there is little question about whether machines can teach, there are some concerns about what and how they teach. Silberman (*5*) in *Crisis in the Classroom* examines totally programed and mechanized projects like the Individually Prescribed Instruction Project in Pittsburgh. While not questioning the ability of such programs to foster learning as they do, he questions the rigidity of behaviorally designed programs which offer only *one* correct answer and *one* route to it.

In addition to this oversimplification of knowledge content and rigidity of approach Silberman hints at another major problem, that of limited individual style and creativity. We must take care that we do not allow the dehumanization of students by over programing or allowing total machine instruction. At the same time, there is obvious need for maintaining the human elements, which only teachers can provide. Nevertheless, machines seem able to do some things humans cannot. Maintaining vital, consistent objectivity is not an easy task for humans. Machines, having no emotions and, therefore, no problems, react coolly and dependably. Consequently, students have indicated that one of the reasons they enjoy working with machines is because they do not yell at them or get mad.

There is much good in the motivational and instructional aspects of machine teaching; nevertheless, there is an inherent danger that it could further reduce individuality and limit the amount of information and growth potential available to a learner. Already school curricula tend to press all students into an "average" rut. Overuse of machines or failure to seek more open-ended and creative programs could produce a greater problem than already exists.

A widespread claim, usually used to support the introduction of machines into the classroom, is that they free the teacher to give students more individual attention; however, actual time studies in this area indicate that record keeping and machine care use up most of the time gained. Thus, while the teacher may improve the quality of records and control in his classroom, he does not necessarily gain time for more individual instruction.

There appears to be little question concerning the validity of machine instruction, especially in the teaching of reading skills. Students usually learn as much by machines as they learn with traditional teaching. In some instances students appear to learn more quickly and have higher retention using the newer technology. However, these indications are based on experimental trials rather than research controlled use. Thus, the primary question we now must ask is when and how machine learning should be used. To answer this question we must look first at what instructional approaches and material are available.

## *WHAT THE MARKET OFFERS*

Tachistoscopic devices such as those produced by Psychotechnics, Craig, Keystone, EDL, Ken-A-Vision, Sawyers, and Rheem Califone are devices and programs for skill improvement, but they cannot be used for introducing skills. The available programs concentrate on vocabulary drill, speed practice, and directional/perceptual type skills. To increase mastery levels and response speed, these devices usually provide a motivating and student-operated approach to drill.

Problems may occur if devices are used with large groups; extended periods of instruction in a darkened, poorly ventilated room can produce nausea. With the possible exception of computer approaches, tachistoscopic devices seem to suffer from the highest amount of breakdown time.

Recorded programs are indisputably the most widespread form of technology. Purchasers can choose cassettes, tape cartridges, reel-to-reel tapes, card-mounted tape strips, or records. In addition to mechanical differences, program approaches vary. Some programs provide only listening pleasure or lecture instruction; others guide the student through learning and practice material; while others provide the opportunity for student response and allow the recording of responses.

The initial use of recordings in reading was exclusively for listening, but today the majority of the recorded programs offer a complementary visual mode. Numerous versions of the recorded book design, where the child looks at the book while listening to a record, are available. The workbook guide tape pioneered by Merrill for skills books has been adapted by many other companies. Imperial Tapes markets companion tapes for nearly all of the nonbasal workbook programs. The recording provides the teaching direction phase of the task and provides explanation and readiness background for the workbook exercise.

There are also short programs designed to emphasize specific skill areas of instruction or reinforcement programs which are taught with record or tape presentations. In most cases workbooks, game cards, and other visual aids are used along with the program. The majority of them (Brenmer-Davis, Americana-Interstate, and Rheem Califone) emphasize either phonic or vocabulary development.

Recorded programs help the teacher provide greater individualization. If a recording can be substituted for the teaching direction which is usually required, the amount of differentiation in instructional and practice activities can be greatly increased. The problems are mostly in the logistics of using the programs. Most classrooms must undergo rather extensive reorganization and arrangement in order to accommodate a variety of hardware oriented activities. Other problems include too few electrical outlets, inappropriate desks or tables, and no dividers.

Two content problems are often found in the programs: 1) The terms (often behavioral) used to describe the content are not familiar to most teachers and do not parallel the format of most basal materials; consequently, extensive teacher time is required to preview all of the material to determine exactly what it does; and 2) a "shotgun" approach has been used in material development. Especially in material labeled as corrective or remedial it is generally assumed that all basic skills are needed and, hence, are provided. Consequently, since neither a sequence nor a regular reinforcement schedule is developed in the material, most programs, regardless of the claims made for them, really can only be expected to provide review and reinforcement of previously introduced skills.

Two special recorded program categories are exemplified by the card readers (Language Master, Biodynamics, and EFI) and the audio-active or listen-and-record tape equipment. The card readers using tape strips printed on cards can be easily programed to serve in many of the telling capacities previously limited to the teacher. Thus, they serve as talking dictionaries able to tell children unknown words when the teacher is unavailable. A second track on some card readers allows the pupil to record his response and check it against the model and thus refine his own memory and production skills. The Craig audio-active tape recorder allows the child to listen to a recorded segment and be recorded each time he responds as directed. Thus, the child is able to check his own responses by relistening to those segments, and his efforts are recorded for later checking by the teacher. For both the audio-active tape recorder and the card reader only a few preprogramed materials are available, thus leaving material development up to the teacher. While most teachers respond joyfully to this capability and opportunity in machine use, few teachers ever find time to prepare very extensive materials of their own.

Films are a rapidly growing area of mechanization in the reading field. Filmloops, filmstrips, filmstrip cartridges, and overhead projector films have all been utilized for presentation of reading instruction and practice. Reading films, such as the early Harvard films, are used for speed training. Craig, EDL, Psychotechnics, and others have utilized filmstrips in much the same manner to provide speed drills. Many filmstrips are available to reinforce specific reading skills or to provide for practice story reading. Ealing has developed a considerable stock of skill training material in the super-8-filmloop medium. Others have used the traditional filmstrip and various cartridge modifications of the filmstrip to provide for skill practice. However, most of the film type materials are designed not as mechanized teaching programs but as aids to teachers. Their major use is to illustrate lectures. Overhead projector material can be included in this category. The advantage of prepared material is that it provides superior illustrative aids for the teacher without requiring preparation time. The major problems concern expense, storage, and utilization. Without classroom adaptations and special efforts at training teachers in the use of these media aids, little benefit can be expected from their purchase. Filmed material is expensive. However, on a long range depreciation approach, a large amount of benefit is obtained for a reasonable sum of money.

Audiovisual presentation devices and teaching machines are the most rapidly growing area in today's reading market. Names like Hoffman, Borg-Warner, Westinghouse, CBS, Dorsett, Acoustifone, RCA, General Learning, and Welch Scientific are becoming familiar for their efforts in reading as a result of redirection of their electronic and communications knowhow. Today, a machine can teach basic reading skills. No longer do the hardware programs need to be limited to reinforcement drill. The machines show and tell and in many cases require responses of the learner in order to continue the instructional presentation. Thus, we have passed the stage when machine use must be carefully guided by the teacher lest the students not benefit from the presentations.

As has always been the case, software is the major limitation with such devices. To be effective and fit into the requirements of the educational system, there must be appropriate and extensive programing. Today there are many "shotgun approach" types of programs, but there is some evidence that developmentally sequenced and sufficiently reinforced instructional programs are not far off.

The audiovisual presentation type devices offer three levels of operation. The simplest presenters show and tell but require no overt response from the student. A second level encourages student involvement: usually there are spaces for pupil responses; but, while there is the potential for involvement, the machine operates with or without involvement. The most sophisticated teaching machine is programed so that instruction will not progress without periodic interaction on the part of the student. With such a program the teacher is alerted if the child is not responding successfully.

Most of the companies mentioned have developed corrective vocabulary and word attack skills programs. With the advanced sophistication of the hardware, we are also beginning to see the emergence of interesting comprehension training programs. Hoffman and others are testing and marketing developmental programs designed to provide the core instructional medium as an alternative to basal text approaches.

As stated earlier, the rapid development of these devices and their accompanying programs has given the educator little time to learn how they work or evaluate what they can or cannot do. However, the initial results do seem to indicate that there is a great deal of magic in the media. Current estimates seem to indicate that, at the intermediate and high school levels, about a one-year achievement gain (as measured on standardized achievement tests) for roughly 20 hours of machine instructional time can be expected. While the gains may be due primarily to the nature of reading development at the levels most tested, there is still little question that improvements of such magnitude in so short a time recommend extensive efforts to determine appropriate utilization.

Although many may not have seen the machines described being used by children, almost everyone has viewed one of the second level programs, *Sesame Street*, seen in homes and classrooms across the continent. *Sesame Street* has demonstrated that television through an audiovisual presentation can teach as effectively as a classroom teacher and does open the doors to many areas previously closed to the learner. With the success of *Sesame Street* and what it has taught those working with the television presentation approach, the industry should soon be offering us more significant innovations for the classrooms—recorded TV cassettes, for example. The computer also is considered to be in the audiovisual category. Fantastic expense seems to be a major deterrent in the utilization of the computer. Limitations in flexibility also seem to prevent the computer from becoming more than a highly sensitive drill provider.

In sketching the sorts of machines available (tachistoscopic, recording, film, and audiovisual devices) relevant instructional capability was also indicated. Tachistoscopes provide reinforcement and increase in rate of operation. Recordings can provide pleasure, lecture-type instruction, and guidance for workbook activities. This medium, therefore, *can* claim the capability for both instruction and reinforcement. Films without sound can instruct with print; but, for purposes of instruction, minimal reading ability is a prerequisite. When an audio track is added to film, a high level of instructional capability is achieved by passing the need to read. But even with hardware capable of teaching, instruction is not assured. The level of instruction ranges from simple presentation to that which demands a response from the student in order to continue operation. Those interested in a categorization of automated instructional devices according to their instructional capabilities will find the author's more extensive consideration of this aspect elsewhere (*4*).

Until now any suggestions as to the utilization of machines in the reading program of today's school have been left out. The most likely application is in the special reading room or lab. Few classroom teachers have available to them the machines described in this paper. Even record players and tape recorders are seldom seen in the average school. It seems that as soon as a price of more than ten dollars is put on an item, there is an economic switch from the classroom to schoolwide level. Thus, most of the devices referred to are purchased on a one per school basis or at least on a multiclassroom sharing basis. While this is recognized as an economic necessity in most cases, it also appears to be one of the major reasons teachers fail to use such materials. If machines are not readily available without the necessity of making prior arrangements, they usually are not used.

Obviously if the one per school or multiclassroom sharing approach does not result in machine use by teachers, a change in the pattern is advised. If schools would assess their needs carefully and then carefully assess the available products, they could limit purchases to only the most useful items. If this approach were used rather than taking "a little of everything," sufficient quantities of the useful items could be purchased for all classrooms. In addition to failure to purchase sufficient units of hardware and software to assure optimum classroom use, there is the teacher knowledge barrier. Teacher training programs concentrate on the mechanics of instruction and tend to ignore training in the content and use of materials. Training in the specific use of mechanized teaching materials is rarely included even if the general topic is covered. To overcome this lack of expertise in our present teachers, emphasis upon the application of technology in the classroom is called for in inservice training programs. To fill the deficit in our preservice programs, introduction to materials must be built into our reading methods courses. To help us we must call upon the machine producers to supply our demonstration centers so that we may train future teachers to use their equipment.

We are now in the era when machine instruction has a multitude of possibilities. We need to explore machine instruction in relation to specific student instructional needs. At the same time we are formulating guidelines for equipment use we must also shoulder the professional burden of preparing teachers for its use. Along with the education of teachers we must also work on reorienting administrative purchasing policies to give innovative hardware a chance by purchasing in a manner which places the equipment in the classroom where it can be used. And finally, if professional educators are to sensitize teachers to advantageous use of mechanized media and teaching machines, it seems appropriate to begin by utilizing some of these approaches in teacher training programs. This practice is a *must,* for teachers are unlikely to heed advice if they never see teachers of teachers setting the example.

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# READING ACHIEVEMENT IN MULTIMEDIA CLASSROOMS

*Donald R. Senter*
*EDL/McGraw-Hill*

The present study is a report on the use of the Listen Look Learn (LLL) Multimedia communication skills system with second year students during the 1968-1969 school year. This study represents one segment of a three-year longitudinal study planned by Educational Developmental Laboratories to test the effectiveness of this communication skills system.

Extensive formative research was conducted on the LLL system during the 1965-1967 period. The information and data collected during this time provided the basis on which system revision and improvement were made. The revision of the LLL system was considered to be completed by the fall of 1967. During the 1967-1968 school year, the first year of the longitudinal summative study was undertaken. Fifty-six classrooms throughout the country participated in the first-year study; 28 classrooms used the LLL and 28 worked with the text-oriented curricula commonly used in the district.

This present study reports the results of the second year of the three-year longitudinal study. In September 1968, 12 of the first-year LLL classrooms continued the use of LLL during their second year of school. These classrooms were located in Arizona, California, Illinois, Minnesota, New York, and Washington. The majority of the students in these classrooms had had LLL instruction during their first year of school. The remaining LLL classrooms from the first year study again used the LLL system for incoming classes of first year pupils instead of continuing in the longitudinal study. Administrators at each of the research installations were asked to select classrooms with teachers and students similar to the experimental LLL classrooms to act as controls. All experimental classes used Listen Look Learn, an ungraded, continuous progress, multimedia communication skills system. Control classes used traditional Ginn, Harper and Row, or Houghton Mifflin basal programs. One control class used a combination of Ginn, Bank Street, SRA, and American Book Company materials.

One control used a combination of Sullivan for three quarters of a year and Ginn for one quarter of a year. One teacher reported the use of multibasal materials for instruction.

The data were collected by questionnaires completed by teachers and by standardized tests. The tests were the Otis Lennon Mental Ability Test administered in October 1968; the Word Meaning, Paragraph Meaning, and Word Study Skills subtests of the Stanford Achievement Test; and the Cooperative Primary Tests, Listening, administered in May 1969.

### *DESCRIPTION OF THE SAMPLE*

Complete data were available for 272 LLL students and 240 control students. Mean values and standard deviations of sample variables are provided in Table 1. Fifty-eight percent of the experimental students had been in the LLL program for two years while the remaining 42 percent were transferred to the LLL classrooms after their first year of reading instruction in a traditional program. The average age and IQ of LLL and control students were similar. Both urban and suburban districts were represented in the sample. Average and low socioeconomic categories were represented in approximately equal numbers with only 20 children from the total sample of students with complete pre- and posttest data identified as high socioeconomic level.

### *OBJECTIVE EVALUATION*

Objective data included in this research study were analyzed by using a modified Biomedical Computer Program (1965). All analyses were performed using analysis of variance and analysis of covariance with multilevel factorial designs in which the following three dimensions were considered:

Treatment (LLL system versus basal program)
Ability Level (high IQ 113 and above, average IQ 88-112, low IQ 87 and below)
Sex (male or female)

The primary design involved an analysis of differences between total experimental and control groups. An auxiliary design was done to analyze the differences among second-year students who worked with the LLL system of instruction for two years, second-year students who worked with the LLL system of instruction for one year, and control students who worked with basal programs. Another auxiliary analysis was performed to test the effectiveness of the program for differing sizes of communities. The fourth

### TABLE 1

### Mean Values of Descriptive Variables for Experimental and Control Groups: Second-Year Study 1968-1969

| Descriptive Variable | (LLL) Experimental | Control |
|---|---|---|
| Number in Sample | 272 | 240 |
| Age in Months (Oct. 1968) | | |
| Mean | 89.6 | 89.5 |
| Standard Deviation | 5.5 | 5.1 |
| IQ (Oct. 1968) | | |
| Mean | 98.9 | 97.3 |
| Standard Deviation | 14.7 | 14.5 |
| Community Size[a] | | |
| Mean | 3.6 | 3.5 |
| Standard Deviation | .7 | .7 |
| Community Type[b] | | |
| Mean | 2.2 | 2.2 |
| Standard Deviation | .7 | .7 |
| Socioeconomic Status[c] | | |
| Mean | 1.5 | 1.5 |
| Standard Deviation | .6 | .6 |
| Number of Weeks in Program | | |
| Mean | 38.5 | 40.1 |
| Standard Deviation | 1.8 | .7 |
| LLL Minutes per Day | | |
| Mean | 139.8 | |
| Standard Deviation | 29.7 | |
| Total Minutes per Day (Language Arts) | | |
| Mean | 184.4 | 163.9 |
| Standard Deviation | 62.3 | 36.6 |
| Beginning Cycle (Sept. 1968) | | |
| Mean | 13.8 | |
| Standard Deviation | 10.3 | |
| Reading Speed (Controlled Reader dial setting Sept. 1968)[d] | | |
| Mean (Words per minute) | 137.3 | |
| Standard Deviation | 83.3 | |
| Ending Cycle (May 1969) | | |
| Mean | 39.0 | |
| Standard Deviation | 13.4 | |
| Reading Speed (Controlled Reader dial setting May 1969)[d] | | |
| Mean (Words per minute) | 211.5 | |
| Standard Deviation | 117.8 | |
| SAT Word Meaning Subtest (May 1969) | | |
| Raw Score Mean | 18.4 | 15.2 |
| Standard Deviation | 8.9 | 7.2 |
| SAT Paragraph Meaning Subtest (May 1969) | | |
| Raw Score Mean | 28.9 | 24.2 |
| Standard Deviation | 12.9 | 12.1 |
| SAT Word Study Skills Subtest (May 1969) | | |
| Raw Score Mean | 33.1 | 32.3 |
| Standard Deviation | 11.8 | 11.1 |
| Cooperative Primary Test, Listening (May 1969) | | |
| Raw Score Mean | 38.7 | 37.7 |
| Standard Deviation | 7.3 | 6.3 |

[a] 1 = less than 2,500; 2 = 2,500 to 10,000; 3 = 10,000 to 50,000; 4 = 50,000 to 250,000; 5 = 250,000 to 1 million; 6 = more than 1 million

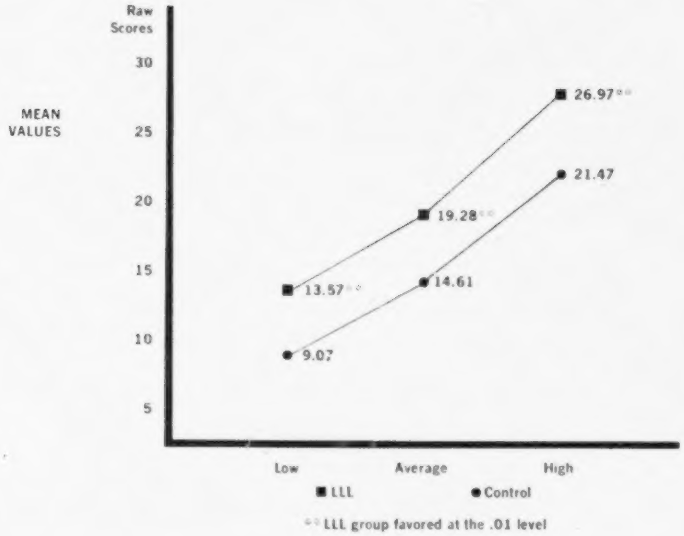
[b] 1 = urban, 2 = inner city (ghetto), 3 = suburban, 4 = urban

[c] 1 = low, 2 = middle, 3 = high

[d] Based on average cycle completed

analysis was done to determine the effect socioeconomic status might have on student achievement.

The primary analysis for the second-year data indicates that differences due to treatment (LLL or control) favored the LLL group as measured by the Stanford Achievement Test reading subtests and the Cooperative Primary Tests, Listening. Figures 1, 2, 3, and 4 are graphical representations of these results. Highly



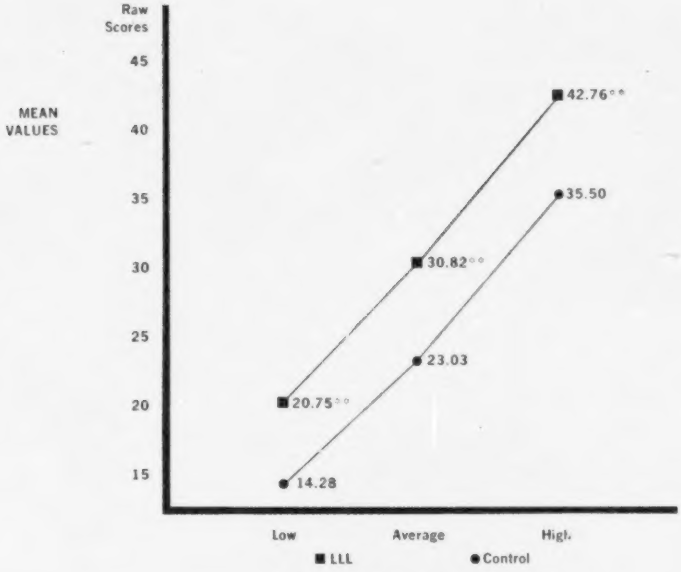
Graphical Representation of Two-Way Interaction of Ability Level by Treatment Group for Word Meaning Subtest of the Stanford Achievement Test, Primary II

Figure 1.

significant differences (the probability of this difference occurring by chance was only one time out of one hundred) are indicated on these graphs by a double asterisk, and significant differences (the probability of this difference occurring by chance was only five times out of one hundred) by a single asterisk. LLL students scored at a significant level above control students on the Word Study Skills subtest of the SAT. Average ability LLL students scored at a significant level above control students on the CPT, Listening. No differences were found that favored children from the control group.

Although significant differences were not detected for each test, test scores of second-year students who used LLL for one year, students who used LLL for two years, and control group students indicated a pattern of achievement test scores which was consistent. Students who had been in LLL classrooms for two years scored at levels above those attained by students using LLL for one year; and, again as a general pattern, children from both LLL groups scored above children from the control group.

An auxiliary analysis of data was done in order to examine the



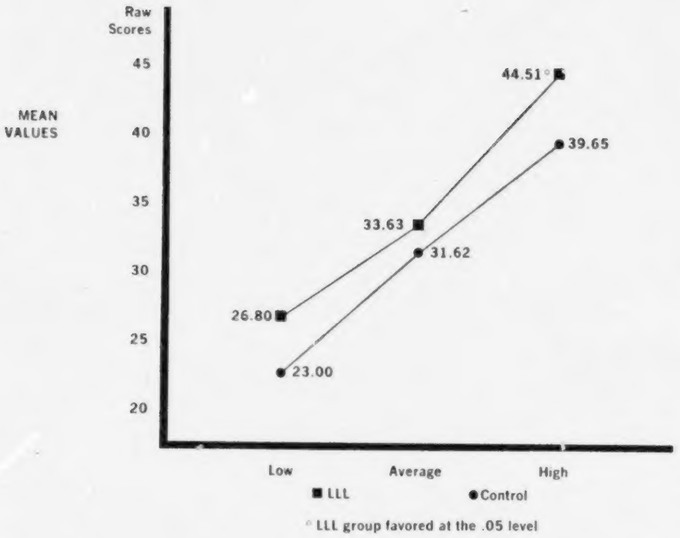
°° LLL group favored at the .01 level

Graphical Representation of Two-Way Interaction of Ability Level by Treatment Group for Paragraph Meaning Subtest of the Stanford Achievement Test, Primary II

Figure 2.

relative success of the LLL and control students in different size communities. Community size was categorized as small population (less than 50,000) or large population (50,000 or more). Analysis of covariance was used to remove initial ability differences from groups. The results obtained for the three reading subtests of the SAT are consistent; highly significant differences favoring LLL were found for that part of the sample from large communities.

An analysis comparing the effects of treatment and socioeconomic status was performed for those children defined by their teachers to be from an average or low socioeconomic background. Results show that LLL students from low socioeconomic backgrounds scored significantly higher on Word Meaning and Paragraph Meaning subtests than did control students from a similar background. It can also be seen that LLL students scored at generally higher levels than did students from control classes for all comparisons in this analysis.



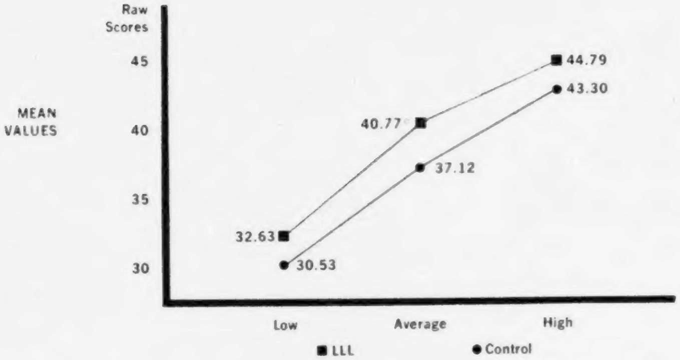
Graphical Representation of Two-Way Interaction of Ability Level by Treatment Group for Word Study Skills Subtest of the Stanford Achievement Test, Primary II

Figure 3.

In addition, means for IQs, raw scores, and grade equivalents were computed for LLL students working within various cycle ranges. The relationship between cycle placement and grade placement of LLL students on the standardized tests is of interest. A typical cycle of instruction requires four to five days for completion and includes word and skill introduction and guided and independent reading. The LLL system contains 20 readiness or prereading Stages and 100 cycles of reading instruction. Seventy percent of the sample began the school year working at a level below cycle 20. Average ability students completing 36 to 50 cycles of instruction scored at grade level to three months above grade level. Students who were working at or above cycle 51 at the end of grade two (20 percent of the sample) and whose mean IQs were within average range scored from three months to two years and two months above grade placement norms.

## *SUBJECTIVE EVALUATION*

In order to determine the manageability and effectiveness of the LLL system in actual classroom situations, a questionnaire



* LLL group favored at the .05 level

Graphical Representation of Two-Way Interaction of Ability Level by Treatment Group for Cooperative Primary Listening Test

Figure 4.

requesting teacher opinion regarding the program was distributed to the LLL teachers. Their responses indicated that the LLL communication skills system is effective and manageable; they also indicated that they enjoyed using this approach for the teaching of reading. Nine of the 12 LLL teachers believed the program to be markedly superior to other programs with which they had previously worked. Ten of the 12 teachers hoped to use the program again. The two teachers who did not wish to use the small group/individualized systems approach to reading objected to it because they felt it required too much planning time.

Subjective data also indicated that teachers find the use of the multimedia approach to be highly motivational for the students and that this high motivational level is maintained throughout the year. Teachers reported that the LLL system allows students to progress through the sequences of instruction at their own rates. Teachers were also impressed by the outstanding achievement made by low and average ability students. Statements made concerning pupils' interest levels in the use of the instruments indicate that in eight classrooms interest started and remained high throughout the school year; although interest started low in two other classrooms, it increased as time progressed. Interest in the use of the instruments diminished in two classrooms as time progressed.

### *SUMMARY*

In summary, data analyzed for this second segment of the planned three-year longitudinal evaluation of the LLL system reinforce the positive findings of the first segment of the study. The LLL system is a manageable and effective multimedia communication skills system for the successful teaching of beginning reading.

# UTILIZING TELEVISION IN READING IMPROVEMENT COURSES

*Jane Werneken*
*Glendale Community College*
*Glendale, Arizona*

Television is an excellent media through which we can bring reading improvement courses to a large number of people who are unable to attend college or any other school in person but who are really eager to improve their reading skills. Reading needs to be considered as a continuum, an ongoing process of learning improved techniques and enriching the fund of knowledge so that we may continually update ourselves in work and the world around us.

Some people in the reading field may consider television reading courses as a threat to first-hand teaching. These people fail to realize that television with its popular acceptance provides the opening wedge, the initial motivation, to bring about a greater interest in reading at all age levels. Because of brief segments of time allotted to television teaching, the viewer receives stimulation of ideas but finds that to thoroughly understand the issues or subjects, he will need to read about them in depth. Television exposes all types of viewers to a capsule perspective of the world, but understanding is not implicit in that picture. The television reading course should not presume to solve all problems in reading but should serve as a catalytic agent in motivating people to seek further ways to improve their reading skills. Classroom and television instruction complement and supplement each other instead of being competitive or duplicative.

The Continuing Education Division of Glendale Community College investigated the need for television instruction and decided to put a reading improvement course on color television once a week for 28 minutes on a regular commercial channel, KTVK, in Phoenix, Arizona, an ABC network station. This course was offered as a public service presentation by KTVK and so cost the college nothing other than the instructor's pay. The Federal Communications Commission requires that commercial television stations "reserve one tenth of the available broadcast time for noncommercial programing. This allotment presents American education with unprecedented challenge" (7).

Prior to my course on broadcast television, one other adult reading improvement course in Arizona had been attempted. The first course encountered difficulty because it used the EDL Controlled Reader in a way which violated sound principles of reading. Stories were presented at one rate to all participants, a practice which obviously did not accommodate individual speed reading differences.

In initiating a new course, I realized the responsibility for having students communicate their understandings and problems to me. Consequently, I devised the weekly outline homework from their text, *Successful Reading, Key to Our Dynamic Society,* together with individual conferences as a tie-in communication technique.

Students enrolled in this television course came to the college to take a group diagnostic test, the Iowa Silent Reading Test. The test results and a Reading Materials Kit with practice materials were sent to each student so that he would become acquainted with his strengths and weaknesses in terms of speed, comprehension, scanning, skimming, improving fund of knowledge, concentration, and retention. Practice materials were mailed by the students, checked and recorded by the instructor, and returned by mail. The prompt return of the outlines helped advise a student of his growth in organizing his understanding of his reading and also motivated him to persist in improving his reading techniques for the sake of better understanding and more enjoyment through the reading process.

Reading goals which were stressed are listed below:

- Have a purpose in doing any kind of reading (information, leisure, enrichment).
- Develop a curious mind.
- Build and enrich vocabulary.
- Become involved in what is read.
- Regulate reading speed according to the difficulty of the material.
- Read in thought units—read for ideas.
- Read with minds and eyes.
- Learn to skim and scan.
- Take effective notes to help memory.
- Establish good study habits.
- Learn techniques for finding the main idea.
- Use a framework for organizing the main ideas.
- Enjoy time alone through reading.

- Expose a variety of new experiences in order to enlarge fund of knowledge and make reading more readily understandable.
- Arrange a healthy reading environment.
- Comprehend and retain what is read.
- Learn to use a variety of materials in the reference library.
- Learn to use the author's ideas as a springboard for one's own creative ideas.
- Learn to separate facts from emotion.
- Respect reading as a process demanding constant practice with improved techniques.
- Keep up with the world in terms of work and leisure.

Vocabulary and outlining were especially stressed in the course. Through outlining the student learns to organize the thoughts of the writer and sees the relationship of the parts to the whole. In every session, vocabulary, in context from the textbook selections, was listed visually and pronounced for the viewers. Each lesson was divided into three parts: class instruction, guests, and use of the Tach x. Early sessions stimulated registration and advised students regarding course requirements and materials needed. Since reading improvement courses had not been given in Arizona on television, it was considered advisable to broadcast three sample sessions before the official start of the course. I found single instructor presentation via lecture method of a course to be very dull. Because of this realization, I decided to seek resource people for my series who would supplement the concepts I was emphasizing in the reading course. It was necessary to contact all of these resource people a month prior to the beginning of the course and to have each of the 16-week segments of the series planned in advance. The program manager asked for the course description and outline two weeks prior to the opening of the reading series. This was not just a demand made by Channel 3 but a regulation of the Interstate Communications Commission to examine well in advance all shows going on the air.

Resource people were interviewed in the program in order to emphasize important areas of the course. Guests on the program included the following:

1. Max Norman, author of *Successful Reading, Key to Our Dynamic Society,* who did a book walk-through and told of his purposes in writing the book.
2. Fritz Marchquart, editor of the editorial page of the *Arizona Republic,* who emphasized the importance of distinguishing between fact and emotion. A student from the college news-

paper staff questioned Marchquart regarding the makeup of an editorial page.

3. A head of a local reading department who made a demonstration of an eye movement camera, showing transparencies of eye patterns and eye spans of children from first to twelfth grades.
4. An engineer from Motorola who stressed the importance of rapid reading with good comprehension as essential to success in the business world. He also emphasized the constant need for engineers to update their knowledge by reading the latest research.
5. A college librarian who acquainted the students with the range of library materials available in every library, especially in the reference section. She called to their attention the many references available to fill in areas of knowledge in work in which they were having difficulty.
6. The directors of the Phoenix Little Theater, the Phoenix Art Museum, and the Arizona Commission of Humanities who told how reading helped people to appreciate, understand, and participate in the fine arts.

Near the end of the course a sophistication quiz was given; names of well-known people throughout the world were put on the visual screen, and the students were asked to match the professions with the names and send this quiz in as an assignment. Such an activity showed the importance of keeping up with current events. Students were particularly grateful for the fact that each television session began with a three-to-four minute summary of the preceding session, thus reenforcing the ideas presented and establishing continuity. When the course was completed, the Iowa Silent Reading test was once more administered at the college reading lab and results were compared with the pretest. These scores indicate that the students really became involved in the work of the television course and actually learned to improve their techniques.

It may be a surprise to classroom teachers that the equipment and material used in the regular remedial reading program can be used satisfactorily on television. The more extensively such tools are used, the better one exploits the television medium. Some classroom materials used by the television station are slide films, 16mm films, filmstrips used with the Tach x, overhead projectors, and reference library materials.

Television can improve instruction because the teacher needs to plan each part of the presentation effectively to the very last second in timing and interpretation. The instructor usually finds that because of this split-second preparation and because of no interruptions, he can cover more material in a television lesson than in a classroom lesson. If students have questions, they are advised to write them down and send them in or come to the instructor's office for a conference.

In television teaching, the teacher is assisted by numerous technical people. Weekly minute-by-minute timing, the names of the participants, and special information that the instructor wishes presented visually must be submitted to the technical director. A teacher must write a script for each class session and plan the visual announcements, names below the pictures of panel members, slides, movies, or charts in sequence for effective use. In addition, a teacher must schedule the time for each class session, dividing the presentation into such time segments as class assignment, summary of preceding lesson, vocabulary pronunciation and visual listings, technique motivation, panel or discussion with students regarding the uses of the reading techniques in their other college courses, and finally an introduction and motivation for the next week's lesson. The types of the instructors' preparations for television just described indicate a need for careful planning. It is important that all administrators consider television such a valuable tool in the learning process that it is given the same prestige as any other course. The instructor must be able to project well as a representative of the college and spend longer hours than for day courses in terms of preparing effective presentations. The tape recordings of each class session need constant study to provide the instructor with good self-analysis. The audiovisual departments of colleges need to give better supportive publicity because the instructor does not have time for this area. Most of the research in the field also indicates that colleges throughout the country doing television work need better publicity backup.

To give a broader perspective regarding education courses through television, I report the following research: The Ford Foundation is sponsoring a great deal of research in using television as a medium for education. We are told in *Teaching by Television* (*5*) that the Ford Foundation has provided financial support amounting to $20 million for a variety of experiments involving the use of television as a medium of instruction. The results of experimentation to date have been very encouraging. These results show that students at both precollege and college levels learn as much, in cases significantly more, from televised instruction as from conventional instruction. The research findings from most of the experiments have been that there is *no* significant difference in achievement between students in television classes and students in regular classes.

The results of two years of testing in the national program in Washington County, Maryland, show a comparison between students taking television to those taking conventional courses. Of the 251 nonsignificant differences found in two years, 165 favored television students and 86 favored those conventionally taught. Significant achievement differences show that 69 favored television and 21 favored conventional instruction. As teachers become more familiar with the television potential, their opposition evaporates. Television, far from being a threat to the classroom teacher, is actually a powerful new tool for enhancing the art and prestige of teaching and for bringing to the student richer, deeper, and broader learning experiences. New York University started *Sunrise Semester* in 1957 on WCBS-TV with 177 students. By the fourth year, 150,000 were enrolled.

Students' responses to television indicated 78 percent thought that use of television was "very good" or "fairly good" in teaching classes of large enrollment. They ranked television over conventional instruction in classes of 200 taught by the same instructor or classes of 45 taught by graduate assistants.

In addition to the Ford Foundation's findings regarding students' responses to television instruction, a *Survey of Viewers of College Courses Over Television* (*1*) states that viewers found astronomy and Latin America I and II, given in the fall of 1966, interesting, satisfactory, and on a par with or better than classroom instruction. Most viewers were aged 30 or over. Students made up 40 percent of the viewers. They favored weekday evenings for viewing time.

Luke (*6*) tells of *Operation Alphabet*, a television course for illiterates given by the Philadelphia public school system. School extension services and Station WFIL combined to work out a series of 100 lessons proposing to teach primary reading and writing skills to Philadelphia illiterates. Grants from the Annenberg Foundation at the University of Pennsylvania and Minnesota Mining and Manufacturing Company made it possible for this series to be taped and offered free to other stations. A home study book accompanies the 100 lessons; it takes 20 weeks to complete the course. Over a three-year period 50,000 to 70,000 adults took the course in Philadelphia, and about 100 cities used the course during 1965-1966.

Further information about courses for illiterates was found in ERIC/CRIER educational research on microfilm. The Columbia

University Teachers College Study endeavored to establish standards of excellence for televising literacy programs; to describe the planning, production, and broadcast of the series *Operation Alphabet*; and to measure performance against standards. A series of 100 half-hour programs aimed at achieving third grade reading level were made available to television stations throughout the country in 1961. In 1962 NAPSAE was given copyright and booking rights. In New York City each lesson was given over three stations (commercial, education, and high school) three times a day. Individual tests were created by the state department of education there and distributed by branch libraries and certificates of competence were offered. Publicity, recruitment, and nonuse of leaders of subculture were shortcomings of the series.

Despite limitations, the outcome of a Washington County, Maryland, 1960 survey (*8*) indicates that most teachers feel more learning takes place with the use of television. Reading showed an increased improvement in classes in both city and rural areas. The strengths cited for television teaching were 1) the opportunity to reach larger numbers of students, 2) the use of closeup pictures for bringing intimacy to instruction, 3) the ability to hold attention, and 4) the feeling of individual attention from the instructor.

Television has been called the "boob tube," but it can be for every individual what he wants it to be—a learning tool and/or a leisure pleasure.

Superior teachers can be selected for instructional television courses, thus providing the cream of professional talents. Being freed from a part of their traditional classroom load, those teachers are then able to concentrate their talents upon perfecting their arts (*4*). In all probability, the medium will not save money, as many of its most vocal advocates have proclaimed. But it can improve instruction. When a lesson is prepared for television, it can be edited, thereby removing the poor area and giving students better lessons.

The general public is astounded to find that reading is being taught at the college level; most people believe that learning to read is completed by the fourth grade. It is the responsibility of all of us in the reading field to correct this prevalent misunderstanding. Since television sets are to be found in virtually every American home regardless of economic or educational status, what better medium is there to promote the value of acquiring reading skills which so greatly enhance the adult individual's growth and development in an everchanging world of ideas? Life can be more interesting, colorful, and challenging if we consider that in becoming a better reader, education emerges as an ever rewarding lifelong process.

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# ON THE MORNING OF THE FIFTH DAY*

*Walter W. Straley*
*Deere and Company*
*Moline, Illinois*

There is in our nation decreasing faith in institutions—be they church, school, corporation, or government. There seems a gathering uncertainty that our institutions either produce our personal views of progress or reflect the values which we suppose to be our own. I say we suppose the institution does not reflect our own values, for we are not altogether sure we possess the high moral values which once we hoped to live by, and we seem only certain that the values of others are even more suspect than our own. Thus, we build our frustration, based upon self-doubt and suspicion. And we turn increasingly to confrontation. It takes many forms.

## *CONFRONTATION*

If you are grumbling aloud to your TV set, this is confrontation; it is fairly satisfying, for you can have the last word. More people are calling and writing presidents of corporations and universities, school superintendents, congressmen, and bishops—and that is confrontation. More of us are looking for and joining groups in which we can find a matching indignation toward those idiots in other groups whose values and goals are obviously wrong.

Sooner or later this grouping process leads to physical confrontation, to the committee charged with seeking redress, and to the mass march on city hall. Often we attack our own institutions for their lack of foresight and for their failure of initiative on our behalf, knowing at least subconsciously that the attack itself will produce a natural defensive stance of self-protection—less risk taking, fewer innovations, and retreat to the relative safety of the status quo. We require change—chiefly a change from our own emptiness of spirit; we demand results which we assure ourselves can only accrue from the efforts of others; we assume that at some distant place solutions will be found to the problems we create.

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* This article also appears in the November 1971 issue of *The Reading Teacher.*

## *OMINOUS INTRODUCTION*

I suppose we believe that a great and simple program will be devised, if we scream hard enough, which will produce self-serenity and return to us our faith in one another. If we continue to use accusative confrontation to produce such a program, there is only one likely to emerge; and that, I suppose, is a program of hydrogen extinction, the logical ultimate in confrontation.

You may think this an ominous introduction to a few remarks about reading. Perhaps it is.

I work down the street from city hall in New York. Recently we escaped the crush of a threatened quarter million people massed around city hall to protest a prospective $40 million deficit in the billion and a half budget of the school system. The $40 million were found in the bookkeeping fiction of next year's budget.

I was an intimate participant in the New York school crisis of 1968-1969, during which we battered one another over the helpless figures of a million children, each of us claiming, often shouting, that only we could be trusted to serve the child. We all turned into villains. No heroes emerged from that fiasco.

Across the country, more than half of last year's school bond issues were defeated in confrontations of often angry voters. Taxpayers strike against their schools; teachers strike against school boards; administrators cut staff and curricula; and many schools close before normal terms are ended. And probably a million children will strike this year by simply dropping out, many turning to drugs and decadence.

## *THIS MATTER OF LITERACY*

Into this anger, turmoil, and sadness, I drop this matter of literacy. And the reason for my introduction is that I think of reading and learning to read as one important path to a new kind of confrontation—a loving confrontation between a person who reads and one who doesn't read or who doesn't read well enough. Perhaps one of every four Americans can't read well enough to get his full "shot" in our society. If this percentage is true, there are three people in four who can read pretty well. Suppose half of those "reading" people could teach somebody else how to read. Now I hear the cries: "But they would have to be trained!" "They would need materials!" "They would interfere with school process!" Let's lay all that aside for a moment and just bear in mind that there might be 75 million people who *could* teach other persons how to read.

Dr. Luvern L. Cunningham in an article entitled "Shut It Down" poses the question this way: "Let us visualize a nation closed down and a maximum mass education effort. . . . We simply inform ourselves about this national deficiency and search for ways to eliminate it." He pictures massive media coverage of nothing but reading issues and millions of people in communities across the country putting their heads together for a brief period of time to concentrate on this one great need.

I wish Cunningham well in his recommendation to shut the country down for four days of concentration on the reading problem. But I don't envision his success, mostly because I don't think he can get people to stop playing golf for four days. It's fun, however, to speculate on possible results of such single-mindedness.

## *ON THE FIFTH DAY*

On the morning of the fifth day, I think we would see the professional educator as a devoted, often overburdened, sometimes highly successful teacher of reading, puzzled as to why his successes don't seem to spread to other places and people of even greater need.

I suppose we would all discover the millions of children who need food or medicine, or glasses or hearing aids, or help with whatever their handicap before they can read successfully.

Perhaps mothers and fathers and older brothers and sisters might become interested in teaching the baby to read before he goes to school.

We might come to pity and through it become determined to rescue the illiterate adult.

We might even decide that in certain bilingual areas we would keep right on teaching in Spanish as well as English all the way through high school.

We might conclude that, if television, radio, and newspapers could teach us so much about reading in four days, they should teach a little reading every day thereafter.

Maybe we would ask whether every child who is learning to read shouldn't be allowed to have his very own books, and perhaps we would start to revolutionize the book distribution system.

We could decide after four days of concentration to make reading a national game, "simple Scrabble for everybody," with reading lessons on cereal packages, peanut butter jars, pop bottles, and candy wrappers. I suppose we'd think business ought to really "fall to" in making teaching of reading to reading-lame employees "the business of business."

## A NEW CONFRONTATION

One thing is certain. From among those 75 million prospective reading teachers, there would appear on the morning of the fifth day many millions of Americans who were determined to engage in a new confrontation, not in groups but straggling alone or in couples into schools mostly, or maybe community centers, or child care centers, or churches. Children and aged, and mamas and clerks and tycoons, and the campus youth, all would say, "I'd like to teach someone to read" or "I have come to help."

This would not be a grand federally directed program. It would be a local, chaotic, confusing, distressing, and altogether lovely outpouring of poor and rich people, villagers and farmers, and commuters and high-rise dwellers, all who at long last would say, "This needs to be done. I'd better go and do it."

Teachers, parents, children, principals, superintendents, and social agencies would find ways to channel this person-to-person flood of good people into union with one child or one needy adult. Yes, on the morning of the fifth day a great loving confrontation of learning might begin.

## ROLE OF THE NRC

What does all of this have to do with our National Reading Council and its National Reading Center?

Most importantly, the council and its center are a symbol of whatever national determination may exist to solve our reading problem. It is a place of partnership where the professional educator, the parent, the child, the communications expert, and the businessman may offer contributions toward reading success.

The council exists because President Nixon and Secretary Richardson brought it into being. Upon its formation the President said, "I hope the council will serve as a catalyst for the nation in producing dramatic improvement in reading ability for those requiring it."

We cannot overpromise nor interfere with people and processes already under way. We are small. We will have a small but lively staff not much larger than a baseball team roster. At the outset we will try to do these things, mostly in conjunction with the Office of Education and other people and agencies:

- Build an information service where people can find how they can fit into reading progress.
- Help spread national information to build national determination to solve reading problems.

- Serve people who are building community networks of volunteer tutors by helping with training and materials.
- Stimulate the media to a greater effort to stress the importance of teaching reading and to do more of it in each medium.
- Assist librarians, publishers, distributors, and others to break through some of the roadblocks to book ownership for the reading student who can't own books now.
- Encourage a coalition of cartoonists, games people, and packagers who can help to make learning to read a national game that everybody can play.

Excepting the building of our information center, it is important to note that every suggested accomplishment rests in the prospective hands of others—millions of others.

We will try, as the President has charged us, to be a catalyst and to be a small but visible working symbol of his and your and our determination to produce dramatic reading improvement in this decade.